SAFETY DATA SHEET



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

1.1. Product identifier

Name of the substance Rosin Ester

Trade name of the

SYLVALITE™ RE 88F

substance

Identification number232-482-5 (EC number)Registration number01-2119488167-27-0001

Synonyms None. SDS number 8848

 Product code
 20000000396

 Issue date
 17-January-2017

Version number 4,0

Revision date 30-September-2022 Supersedes date 03-August-2022

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

Industrial uses: Uses of substances as such or in preparations at industrial sites. Formulation

[mixing] of preparations and/or re-packaging (excluding alloys).

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Company name Kraton Chemical B.V.

Address Transistorstraat 16, 1322 CE Almere, The Netherlands

Phone +31 36 546 2800

Email address regulatory.eu@kraton.com

1.4. Emergency telephone EU NCEC +44 1865 407 333

number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

This substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

Hazard summary May form explosible dust-air mixture if dispersed.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Hazard pictograms None.

Signal word None.

Hazard statements The substance does not meet the criteria for classification.

Precautionary statements

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Supplemental label information None.

2.3. Other hazards May form explosible dust-air mixture if dispersed. This mixture does not contain substances

assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1. Substances

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Resin acids and Rosin acids, esters with glycerol	99-100	8050-31-5 232-482-5	01-2119488167-27-0014 01-2119488167-27-0001 01-2119488167-27-0002	-	
Classification: -					

List of abbreviations and symbols that may be used above

CLP: Regulation No. 1272/2008. DSD: Directive 67/548/EEC.

M: M-factor

vPvB: very persistent and very bioaccumulative substance.

PBT: persistent, bioaccumulative and toxic substance.

#: This substance has been assigned Community workplace exposure limit(s).

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to

protect themselves.

4.1. Description of first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Wash off with soap and water. Get medical attention if irritation develops and persists. Skin contact Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists. Eye contact

Ingestion Rinse mouth. Get medical attention if symptoms occur. Dusts may irritate the respiratory tract, skin and eyes.

4.2. Most important symptoms and effects, both acute and

delayed

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

SECTION 5: Firefighting measures

General fire hazards May form combustible dust concentrations in air.

5.1. Extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Apply extinguishing media Suitable extinguishing

carefully to avoid creating airborne dust.

media

Unsuitable extinguishing Do not use water jet as an extinguisher, as this will spread the fire.

media

5.2. Special hazards arising

High concentration of airborne dust may form explosive mixture with air. Static charges generated by emptying package in or near flammable vapour may cause flash fire. During fire, gases from the substance or mixture hazardous to health may be formed. Upon decomposition, this product emits carbon monoxide.

carbon dioxide and/or low molecular weight hydrocarbons.

5.3. Advice for firefighters

Special protective

equipment for firefighters

Special fire fighting

procedures

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

In case of fire and/or explosion do not breathe fumes. Wear suitable protective equipment. Move

containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency

Wear appropriate personal protective equipment.

personnel

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the For emergency responders

SDS.

6.2. Environmental precautions Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Never return spills to original containers for re-use.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Minimise dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Explosion-proof general and local exhaust ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. Follow all SDS/label precautions even after container is emptied because they may retain product residues.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Store at ambient temperature and atmospheric pressure. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

Austria MAK List OFL Ordinance (GwV) BGBL II no 184/2001

8.1. Control parameters

Occupational exposure limits

Additional components	Type	Value	Form
Dust	MAK	5 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.
	STEL	20 mg/m3	Inhalable fraction.
		10 mg/m3	Respirable fraction.
Belgium. Exposure Limit Va	alues		
Additional components	Туре	Value	Form
Dust	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.
Finland			
Additional components	Туре	Value	
Dust	T\A/A		
Dust	TWA	5 mg/m3	
		10 mg/m3	NRS ED 984
France. Threshold Limit Val Additional components	lues (VLEP) for Occupational Exposu Type	10 mg/m3 ure to Chemicals in France, I Value	Form
France. Threshold Limit Val Additional components Dust	lues (VLEP) for Occupational Exposu Type VME	10 mg/m3 ure to Chemicals in France, I	
France. Threshold Limit Val Additional components Dust	lues (VLEP) for Occupational Exposu Type	10 mg/m3 ure to Chemicals in France, I Value 5 mg/m3	Form Respirable fraction.
France. Threshold Limit Val Additional components Dust Regulatory status: Re	lues (VLEP) for Occupational Exposu Type VME	10 mg/m3 ure to Chemicals in France, I Value	Form
France. Threshold Limit Val Additional components Dust Regulatory status: Regulatory St	lues (VLEP) for Occupational Exposu Type VME egulatory binding (VRC)	10 mg/m3 ure to Chemicals in France, I Value 5 mg/m3 10 mg/m3	Respirable fraction. Inhalable fraction.
France. Threshold Limit Val Additional components Dust Regulatory status: Regulatory St	lues (VLEP) for Occupational Expose Type VME egulatory binding (VRC)	10 mg/m3 ure to Chemicals in France, I Value 5 mg/m3 10 mg/m3	Respirable fraction. Inhalable fraction.
France. Threshold Limit Val Additional components Dust Regulatory status: Regulatory st	lues (VLEP) for Occupational Expose Type VME egulatory binding (VRC) egulatory binding (VRC) dvisory OELs). Commission for the li	10 mg/m3 ure to Chemicals in France, I Value 5 mg/m3 10 mg/m3 nvestigation of Health Hazard	Form Respirable fraction. Inhalable fraction. ds of Chemical Compou
France. Threshold Limit Val Additional components Dust Regulatory status: Regulatory status: Regulatory status: Refermany. DFG MAK List (action the Work Area (DFG) Additional components Dust	lues (VLEP) for Occupational Exposury Type VME egulatory binding (VRC) egulatory binding (VRC) dvisory OELs). Commission for the Interpretation	10 mg/m3 ure to Chemicals in France, I Value 5 mg/m3 10 mg/m3 nvestigation of Health Hazard Value 4 mg/m3	Form Respirable fraction. Inhalable fraction. ds of Chemical Compou
France. Threshold Limit Val Additional components Dust Regulatory status: Regulatory status: Regulatory status: Refermany. DFG MAK List (action the Work Area (DFG) Additional components Dust Germany. TRGS 900, Limit	lues (VLEP) for Occupational Exposi Type VME egulatory binding (VRC) egulatory binding (VRC) dvisory OELs). Commission for the li	10 mg/m3 ure to Chemicals in France, I Value 5 mg/m3 10 mg/m3 nvestigation of Health Hazard Value 4 mg/m3	Form Respirable fraction. Inhalable fraction. ds of Chemical Compou
France. Threshold Limit Val Additional components Dust Regulatory status: Regulatory status: Regulatory status: Refermany. DFG MAK List (action the Work Area (DFG) Additional components Dust	lues (VLEP) for Occupational Expose Type VME egulatory binding (VRC) egulatory binding (VRC) dvisory OELs). Commission for the li Type TWA Values in the Ambient Air at the Work	10 mg/m3 ure to Chemicals in France, I Value 5 mg/m3 10 mg/m3 nvestigation of Health Hazard Value 4 mg/m3 kplace	Form Respirable fraction. Inhalable fraction. ds of Chemical Compou Form Inhalable dust.

	Туре	Value	Form
Dust	TWA	5 mg/m3	Respirable dust.
		10 mg/m3	Total dust.
Ireland. Occupational Exposure Limits Additional components	Туре	Value	Form
Dust	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Total inhalable dust.
Latvia. OELs. Occupational exposure lim Additional components	nit values of chemical subs Type	stances in work environm Value	ent Form
Dust	TWA	5 mg/m3	Dust.
Lithuania. OELs. Limit Values for Chemi Additional components	cal Substances, General F Type	Requirements Value	Form
Dust	TWA	5 mg/m3	Respirable fraction.
D431	1 ***	10 mg/m3	Inhalable fraction.
Netherlands Additional components	Туре	Value	Form
Dust	TWA (MAC)	5 mg/m3	Respirable dust.
Dust	TVVA (IVIAC)	10 mg/m3	Total dust.
		•	
Slovakia. OELs. Regulation No. 300/2007 Additional components	Type	health in work with chem Value	ical agents Form
Dust	TWA	10 mg/m3	Dust.
Slovenia. OELs. Regulations concerning (Official Gazette of the Republic of Slove Additional components		inst risks due to exposur Value	e to chemicals while wo
Dust	TWA	10 mg/m3	Inhalable fraction.
Dust	1 7 7 7	1,25 mg/m3	Respirable fraction.
Spain. Occupational Exposure Limits Additional components	Туре	Value	Form
<u> </u>			-
Dust	TWA	3 mg/m3 10 mg/m3	Respirable fraction. Inhalable fraction.
		TO HIG/HIS	minalable naction.
Switzerland. SUVA Grenzwerte am Arbei	tsplatz Type	Value	Form
	IYPC		
Additional components			Respirable dust
Additional components	TWA	3 mg/m3	Respirable dust.
Additional components Dust	TWA		
Additional components Dust UK. EH40 Workplace Exposure Limits (W	TWA	3 mg/m3	
Additional components Dust UK. EH40 Workplace Exposure Limits (WA) Additional components	TWA /ELs) Type	3 mg/m3 10 mg/m3 Value	Inhalable dust.
Additional components Dust UK. EH40 Workplace Exposure Limits (WAdditional components	TWA /ELs)	3 mg/m3 10 mg/m3 Value 4 mg/m3	Inhalable dust.
Additional components Dust UK. EH40 Workplace Exposure Limits (Wadditional components) Dust	TWA /ELs) Type TWA	3 mg/m3 10 mg/m3 Value 4 mg/m3 10 mg/m3	Inhalable dust. Form Respirable dust.
Additional components Dust UK. EH40 Workplace Exposure Limits (WAdditional components Dust Ogical limit values Ommended monitoring No biological Follow standard	TWA /ELs) Type	3 mg/m3 10 mg/m3 Value 4 mg/m3 10 mg/m3	Inhalable dust. Form Respirable dust.
Additional components Dust UK. EH40 Workplace Exposure Limits (WAdditional components) Dust Ogical limit values Ommended monitoring Follow standard	TWA /ELs) Type TWA al exposure limits noted for the	3 mg/m3 10 mg/m3 Value 4 mg/m3 10 mg/m3	Inhalable dust. Form Respirable dust.
Additional components Dust UK. EH40 Workplace Exposure Limits (WAdditional components) Dust Ogical limit values Ommended monitoring Follow standard cedures ved no effect levels (DNELs)	TWA /ELs) Type TWA al exposure limits noted for the	3 mg/m3 10 mg/m3 Value 4 mg/m3 10 mg/m3	Inhalable dust. Form Respirable dust.
Additional components Dust UK. EH40 Workplace Exposure Limits (WAdditional components Dust Ogical limit values No biological	TWA /ELs) Type TWA al exposure limits noted for the dard monitoring procedures. Value	3 mg/m3 10 mg/m3 Value 4 mg/m3 10 mg/m3	Inhalable dust. Form Respirable dust.

Components	Value	Assessment factor	Notes				
Resin acids and Rosin acids, esters with glycerol (CAS 8050-31-5)							
Long-term, Systemic, Dermal	2,5 mg/kg bw/day	200	Repeated dose toxicity				
Long-term, Systemic, Oral	2,5 mg/kg bw/day	200	Repeated dose toxicity				
<u>Workers</u>							
Components	Value	Assessment factor	Notes				
Resin acids and Rosin acids, esters with g	ycerol (CAS 8050-31-5)						
Long-term, Local, Inhalation	10 mg/m3						
Long-term, Systemic, Dermal	5 mg/kg bw/day	100	Repeated dose toxicity				

Predicted no effect concentrations (PNECs)

Assessment factor Notes Components Value Resin acids and Rosin acids, esters with glycerol (CAS 8050-31-5) Freshwater 1000 0.1 ma/l 10000 Marine water 0.01 mg/l Sediment (freshwater) 2317,75 mg/kg 231,78 mg/kg Sediment (marine water) 462.06 ma/ka Soil

STP 8.2. Exposure controls

Appropriate engineering

controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

10

Individual protection measures, such as personal protective equipment

Use personal protective equipment as required. Personal protection equipment should be chosen **General information**

according to the CEN standards and in discussion with the supplier of the personal protective

equipment.

Wear safety glasses with side shields (or goggles). Eye/face protection

Skin protection

- Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove

supplier.

Wear suitable protective clothing. - Other

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure

limits (where applicable) or to an acceptable level (in countries where exposure limits have not

been established), an approved respirator must be worn.

Wear appropriate thermal protective clothing, when necessary. Thermal hazards

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such Hygiene measures

as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Eye wash fountain and

emergency showers are recommended.

2,525 mg/l

Environmental exposure

controls

Environmental manager must be informed of all major releases. Emissions from ventilation or work

process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. Fume scrubbers, filters or engineering modifications to the

process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Solid.

Pastilles or Pellets. or Flakes. **Form**

Clear. Colour Odourless. Odour Melting point/freezing point Not available. Boiling point or initial boiling Not available.

point and boiling range

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

Flammability limit - upper

Not available.

(%)

Flash point > 295,0 °C (> 563,0 °F) Cleveland open cup

Auto-ignition temperature Not available. Not available. **Decomposition temperature** pН Not available.

Solubility(ies)

Solubility (water) < 0,1 % at 20°C

Partition coefficient 6,1 - 7,1 at 35°C; Data is for similar product (n-octanol/water)

Vapour pressure < 0,001 mm Hg at 20°C

Vapour density Not available.

Relative density 1,08 OECD 105 at 25°C/25°C; (water=1)

Particle characteristics Not available.

Other safety characteristics

Chemical family Rosin Ester

Evaporation rate 0 (n-BuAc=1) estimated

Percent volatile 0 % estimated

Softening point 85 - 92 °C (185 - 197,6 °F) Ring & Ball

Weighted solids 100 %

SECTION 10: Stability and reactivity

10.1. ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stabilityMaterial is stable under normal conditions.

10.3. Possibility of hazardous

No dangerous reaction known under conditions of normal use.

reactions

10.4. Conditions to avoid Strong oxidising agents. Keep away from heat, sparks and open flame. Contact with incompatible

materials. Minimise dust generation and accumulation.

10.5. Incompatible materials

decomposition products

Strong oxidising agents.

10.6. Hazardous

Upon decomposition this product emits acrid dense smoke with carbon dioxide, carbon monoxide,

water and other products of combustion.

SECTION 11: Toxicological information

General information Not available.

Information on likely routes of exposure

Inhalation Dust may irritate respiratory system.

Skin contact

No adverse effects due to skin contact are expected.

Eye contact

Direct contact with eyes may cause temporary irritation.

Resin acids and Rosin acids, esters with glycerol Irritation Corrosion - Eye, No eye irritation.; Data is for similar

product.

Result: Negative

Species: New Zealand white rabbit

Organ: Eye

Observation Period: 7 days

Notes: OECD 405

Ingestion May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of

occupational exposure.

Symptoms Dusts may irritate the respiratory tract, skin and eyes.

11.1. Information on toxicological effects

Acute toxicity Based on available data, the classification criteria are not met.

Components Species Test Results

Resin acids and Rosin acids, esters with glycerol (CAS 8050-31-5)

Acute Dermal

LD50 Rat > 2000 mg/kg, 24 Hours

Sprague-Dawley rat > 2000 mg/kg At this dose no death

occurred.; Data is for similar product.;

OECD 402

Oral

LD50 Rat > 2000 mg/kg

Sprague-Dawley rat > 2000 mg/kg At this dose no death

occurred.; Data is for similar product.;

OECD 401

Subchronic

Oral

NOAEL Sprague-Dawley rat 1757 mg/kg/day, 28 days Fertility;

Developmental; Data is for similar product.;

OECD 421

NOEL Sprague-Dawley rat 600 mg/kg/day, 90 days Data is for similar

product.; OECD 408

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Material name: SYLVALITE™ RE 88F 8848 Version #: 4,0 Revision date: 30-September-2022 Issue date: 17-January-2017

^{*} Estimates for product may be based on additional component data not shown.

Corrosivity

Resin acids and Rosin acids, esters with glycerol Irritation Corrosion - Skin, No skin irritation.; Data is for

similar product. Result: Negative

Species: New Zealand white rabbit

Organ: Skin Test Duration: 4 hr Observation Period: 72 hr Notes: OECD 404

Serious eye damage/eye

irritation

Direct contact with eyes may cause temporary irritation.

Eye contact

Resin acids and Rosin acids, esters with glycerol Iri

Irritation Corrosion - Eye, No eye irritation.; Data is for similar

product.

Result: Negative

Species: New Zealand white rabbit

Organ: Eye

Observation Period: 7 days

Notes: OECD 405

Respiratory sensitisation Not available.

Skin sensitisation This product is not expected to cause skin sensitisation.

Skin Sensitisation

Resin acids and Rosin acids, esters with glycerol Local Lymph Node Assay - Lowest Concentration Producing

Reaction, Not a skin sensitiser.

Result: Negative Species: Mouse Organ: Skin Notes: OECD 429

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

carcinogenic.

Mutagenicity

Resin acids and Rosin acids, esters with glycerol Germ Cell Mutagenicity: Ames

Result: Negative

Species: Salmonella typhimurium

Notes: OECD 471

Germ Cell Mutagenicity: Chromosome Abberation

Result: Negative Species: Hamster Organ: Ovary cells Notes: OECD 473

In vitro gene mutation study in mammalian cells

Result: Negative Species: Mouse Notes: OECD 476

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Not available.

Specific target organ toxicity -

repeated exposure

Not available.

Aspiration hazard Not available.

Mixture versus substance

information

No information available.

11.2. Information on other hazards

Endocrine disrupting

properties

The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU)

2018/605 at levels of 0.1% or higher.

Other information Not available.

SECTION 12: Ecological information

12.1. ToxicityThe product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components Species Test Results

Resin acids and Rosin acids, esters with glycerol (CAS 8050-31-5)

Aquatic

Algae EL50 Algae > 1000 mg/l, 72 hr Data is for similar

product.; OECD 201

NOEL Algae 1000 mg/l, 72 hr Data is for similar

product.; OECD 201

Crustacea EC50 Daphnia > 100 mg/l, 48 hr OECD 202

NOEL Daphnia 100 mg/l, 48 hr OECD 202

Fish LL50 Fathead minnow (Pimephales promelas) > 1000 mg/l, 96 hr At this dose no death

occurred.; Data is for similar product.;

OECD 203

NOEL Fathead minnow (Pimephales promelas) 1000 mg/l, 96 hr Data is for similar

product.; OECD 203

12.2. Persistence and

Not readily degradable.

degradability

Biodegradability

Percent Degradation (Aerobic Biodegradation)

Resin acids and Rosin acids, esters with glycerol 0 % CO2 Evolution Test

Result: Not readily biodegradable. Species: Activated sewage sludge

Test Duration: 28 d

12.3. Bioaccumulative potential Not available.

Partition coefficient

n-octanol/water (log Kow)

SYLVALITE™ RE 88F 6,1 - 7,1, at 35°C; Data is for similar product.

Resin acids and Rosin acids, esters with glycerol 3,97, at 20°C

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB

assessment

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation

(EC) No 1907/2006, Annex XIII.

12.6. Endocrine disrupting

properties

The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU)

2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some

product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of

 $contents/container\ in\ accordance\ with\ local/regional/national/international\ regulations.$

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number Not available. **14.2. UN proper shipping** Not available.

name

14.3. Transport hazard class(es)

Class Not available.

Subsidiary risk -

Hazard No. (ADR)
Tunnel restriction code
14.4. Packing group
Not available.
Not available.

14.5. Environmental hazards No.

^{*} Estimates for product may be based on additional component data not shown.

Not available. 14.6. Special precautions

for user

RID

Not available. 14.1. UN number 14.2. UN proper shipping Not available.

name

14.3. Transport hazard class(es)

Class Not available.

Subsidiary risk

14.4. Packing group Not available.

14.5. Environmental hazards No.

14.6. Special precautions Not available.

for user

ADN

14.1. UN number Not available. 14.2. UN proper shipping Not available.

14.3. Transport hazard class(es)

Not available. **Class**

Subsidiary risk

14.4. Packing group Not available.

14.5. Environmental hazards No.

14.6. Special precautions Not available.

for user

IATA

14.1. UN number Not available. Not available. 14.2. UN proper shipping

name

14.3. Transport hazard class(es)

Class Not available.

Subsidiary risk

14.4. Packing group Not available.

14.5. Environmental hazards No.

Not available. 14.6. Special precautions

for user

IMDG

Not available. 14.1. UN number Not available. 14.2. UN proper shipping

name

14.3. Transport hazard class(es)

Class Not available.

Subsidiary risk

14.4. Packing group Not available.

14.5. Environmental hazards

Marine pollutant

EmS Not available. 14.6. Special precautions Not available.

for user

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code.

SECTION 15: Regulatory information

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

EU regulations

Code

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended Not listed.

Material name: SYLVALITE™ RE 88F 8848 Version #: 4,0 Revision date: 30-September-2022 Issue date: 17-January-2017 Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. The

product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation)

as amended.

National regulations Follow national regulation for work with chemical agents.

15.2. Chemical safety

Water hazard class

A Chemical Safety Assessment has been carried out for this substance.

assessment

AwSV WGK1

SECTION 16: Other information

Not available. List of abbreviations Not available. References Not applicable.

Information on evaluation method leading to the

classification of mixture

None.

Full text of any H-statements

not written out in full under

Sections 2 to 15

Revision information Physical & Chemical Properties: Multiple Properties

SECTION 9: Physical and chemical properties: Appearance SECTION 9: Physical and chemical properties: Colour SECTION 9: Physical and chemical properties: Form SECTION 9: Physical and chemical properties: Odour

Follow training instructions when handling this material. **Training information**

Material name: SYLVALITE™ RE 88F

SDS EU 8848 Version #: 4,0 Revision date: 30-September-2022 Issue date: 17-January-2017

Disclaimer

KRATON CORPORATION urges each customer or recipient of this SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. The information set forth in this document, as of the date of this document, is based on present knowledge, obtained from reliable sources and made to our reasonable ability and in good faith. Such information is made without any warranty or guarantee whatsoever, and shall establish no legal duty or responsibility on the part of the author(s), their employer or its affiliates. The information given is designed only as guidance and its completeness is not guaranteed. The information is not a guarantee of any specific product properties, features, qualities or specifications.

The information relates only to the specific product designated as shipped, and may not be valid for such product used in combination with any other materials or products, or in any process, unless expressly specified in this document. Nothing set forth in this document shall be construed as a recommendation or license to use any product in conflict with, or as claimed by, any existing patents rights. The user alone must finally determine whether a contemplated use of a product will infringe any such patents. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities are in compliance with all Local, Federal and International Legislation and Local Permits.

We, for ourselves and on behalf of our affiliates, expressly disclaim any and all liability for any damages or injuries arising out of any activities relating in any way to the information set forth in this document. Due to the proliferation of sources for information, we are not and cannot be responsible for SDSs obtained from any other source other than ourselves. If you have obtained an SDS from another source or if you are not sure that the SDS you have is current, please contact us for the most current version.

*KRATON, the KRATON logo, the "Green Super Drop" logo, 1101, ABIETA, AQUATAC, BiaXam, BI-THIN, CENTURY, CENWAX, CirKular+, ELEXAR, ELLAMERA, E-LEXAR, HiMA, IMSS, IPD, NEXAR, PER-SUST, PriMul, RAD-THICK, REFLECTAID, REvolution, SYLFAT, SYLVABIND, SYLVABLEND, SYLVACLEAR, SYLVACOTE, SYLVADERM, SYLVAFUEL, SYLVAGEL, SYLVAGUM, SYLVALITE, SYLVAMIN, SYLVAPINE, SYLVAPRINT, SYLVARES, SYLVAROAD, SYLVAROS, SYLVASOLV, SYLVATAC, SYLVATAL, SYLVATRAXX, TER-SET, UNICLEAR, UNIDYME, UNIFLEX, UNI-REZ, UNI-TAC, and ZONATAC are either trademarks or registered trademarks of Kraton Corporation, or its subsidiaries or affiliates, in one or more, but not all countries.

©2016-2022 Kraton Corporation