Updated: December 2019 **Avigel - Health and Safety Datasheet**

1. IDENTIFICATION OF SUBSTANCE

Product Name	Avigel
Product Description	A strippable coating designed for application to metal surfaces.
Supplier	As heading

2.1 CLASSIFICATION OF THE SUBSTANCES OR MIXTURE

EC 1272/2008

Physical and Chemical Hazards	Flam. Liq. 2 - H225
Human health	Skin Irrit. 2 - H315;Eye Irrit. 2 - H319 STOT SE 3 - H336 STOT RE 2 - H373;Asp. Tox. 1 - H304;Repr. 2 - H361d
Environment	Not classified

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Human health

The product is irritating to eyes and skin. Prolonged skin contact may cause redness, irritation and dry skin. Splashes in the eyes may cause redness and irritation. In high concentrations, vapours and spray mists are narcotic and may cause headache, fatigue, dizziness and nausea. Droplets of the product aspirated into the lungs through ingestion or inhalation may cause a serious chemical pneumonia.

Physical and Chemical Hazards

The product is highly flammable, and explosive vapours/air mixtures may be formed even at normal room temperatures. Vapours are heavier than air and may travel along the floor and in the bottom of containers. Heating will generate vapours which may form explosive vapour/air mixtures. Vapours may be ignited by a spark, a hot surface or an ember.

2.2 LABEL ELEMENTS

Contains Toluene Acetone

Labels in Accordance with EC 1272/2008

Signal Word Danger

Hazard Statements

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to central nervous system through prolonged or repeated exposure.

Precautionary Statements

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER / doctor / physician.

Precautionary Statements contd.

P303+361+353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P370+378	In case of fire: Use dry chemical powder, alcohol resistant foam, CO_2 to extinguish.

Supplementary Precautionary Statements

P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical equipment.
P271	Use only outdoors or in a well-ventilated area.
P260	Do not breathe vapours/spray.
P312	Call a POISON CENTER/doctor if you feel unwell.
P331	Do NOT induce vomiting.
P332+313	If skin irritation occurs: Get medical advice/attention.
P403+233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of container in accordance with local, regional, national, international regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredient	EC/List No.	CAS No.	%	GHS Symbols	1272/2008	Signal
Toluene	203-625-9	108-88-3	30 - 60	02, 07, 08	H225, H304, H315, H336, H361d, H373	Danger
Acetone	200-662-2	67-64-1	30 - 60	02, 07	H225, H319, H336	Danger

Additional Information

The Full Text for all Hazard Statements are Displayed in Section 16. All Concentration values are expressed in a weight/weight % value.

4. FIRST AID MEASURES

General - If medical attention is required present a copy of this datasheet to the physician.

Inhalation - Immediately move the exposed person to fresh air. Perform artificial respiration if breathing has stopped. Keep the affected person warm and at rest.
Seek medical attention

Skin Contact - Remove affected person from source of contamination. Promptly flush contaminated skin with water. Promptly remove clothing if soaked through and flush the skin with water.
Seek medical attention if irritation persists after washing.

Eye Contact - Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse.
Seek medical attention immediately.

Ingestion - Do **NOT** induce vomiting, Rinse mouth with water and drink large quantities of water.
Seek medical attention immediately.

Common Symptoms and effects both acute and delayed

Inhalation - Vapours may cause headache, fatigue, dizziness and nausea.

Ingestion - May cause discomfort if swallowed. May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.

Skin Contact - Skin Irritation. Prolonged contact may cause redness, irritation and dry skin.

Eye Contact - Irritation of eyes and mucous membranes. Irritation and may cause redness and pain.

5. FIRE FIGHTING MEASURES

Fire Hazards	- Highly Flammable, May explode in fire. May form explosive or toxic mixtures with air. May travel considerable distance to source of ignition and flash back. Constitutes a vapour explosion and poison hazard indoors, outdoors and in sewers.
Extinguishing Media	- Alcohol resistant foam, Carbon Dioxide, Dry Chemicals, Sand, Dolomite etc.
Combustion Products	- During fire, CO and CO_2 are formed.
Protective Equipment	- Self contained breathing apparatus and full protective clothing must be worn in case of fire.
Environmental Procedures	- Keep run off water out of sewers and water sources. Dike for water control. - Cool containers exposed to flames with water until well after the fire is out. Move container from fire area if it can be done without risk. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks occur due to fire. Use water spray to reduce vapours. If risk of water pollution occurs, notify appropriate authorities.

6. ACCIDENTAL RELEASE MEASURES

Personal	- Use protective gloves, goggles and suitable protective clothing. Avoid contact with skin and eyes. Do not breathe vapour. Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. Do not smoke, use open fire or other sources of ignition. Take precautionary measures against static discharges.
Environmental	- Avoid discharge to the aquatic environment. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.
Methods of Clean Up	- Ventilate well, stop flow of gas or liquid if possible. Remove ignition sources. Do not allow chemical to enter confined spaces such as sewers due to explosion risk. Sewers designed to preclude formation of explosive concentrations of vapour may be permitted. Absorb small quantities with paper towels and evaporate in safe place (fume hood). Allow sufficient time for vapours to completely clear the hood ducts, then burn the paper in a location away from combustible materials. Collect with non-combustible absorbent material. Flush with water. Dike for large spills. Let evaporate. Keep out of confined spaces because of explosion risk. Clean-up personnel should use respiratory and/or liquid contact protection.

7. HANDLING AND STORAGE

Handling	- Avoid creating dusty conditions and prevent wind dispersal. Good industrial practice in housekeeping and personal hygiene should be followed. When using do not eat, drink or smoke. Wear suitable gloves and eye/face protection. (See 8). Equipment or utensils used for dispensing the chemical must be suitable for the purpose. Wash out after use. Wash thoroughly after handling the material. Remove contaminated clothing and wash before re-use. Avoid contact with eyes, skin and clothing. Avoid ingestion/inhalation
Storage	- Store in a dry well ventilated area. Reseal open packages to prevent spillage. Use in a well ventilated area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Adequate ventilation should be provided such that Occupational Exposure Limits are not exceeded. Local Exhaust Ventilation is preferable to personal protection although a chemical respirator with organic vapour cartridge and full faceplate should be worn if there is inadequate ventilation. Gloves made out of Butyl Rubber at least 0.5mm thick, Goggles, Protective overalls and a face shield should also be worn.

Provide eyewash station and safety shower. Wear appropriate clothing to prevent repeated or prolonged skin contact.

Ingredient	Standard	TWA - 8 hours		STEL - 15 minutes	
Toluene	WEL	500ppm	1210 mg/m³	1500 ppm	3620 mg/m³
Acetone	WEL	50ppm	191 mg/m³	100 ppm	384 mg/m³

8. EXPOSURE CONTROLS / PERSONAL PROTECTION CONTD.

DNELs and PNECs listed here are for the chemical constituents at full concentration and not as present in Avigel.

DNEL

Ingredient	Workers (Systemic)						General (Systemic)					
	Inhalation		Dermal		Oral		Inhalation		Dermal		Oral	
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic
Toluene	384	192	-	384	-	-	226	56.5	-	226	-	8.13
Acetone	2420	1210	-	186	-	-	-	200	-	62	-	62

Ingredient	Workers (Local)						General (Local)					
	Inhalation		Dermal		Oral		Inhalation		Dermal		Oral	
	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic	Acute	Chronic
Toluene	289	-	-	180	-	-	174	-	-	108	-	-

Chronic = Long Term Exposure
Inhalation (mg / m³) Oral (mg/kg bw/day) Information provided by echa
Dermal (mg/kg bw/day)

PNEC

Ingredient	Freshwater	Marine Water	Intermittent Release	STP	Sediment Freshwater	Sediment Marine Water	Soil	Secondary
Toluene	0.68 mg/l	0.68 mg/l	0.68 mg/l	13.61 mg/l	16.39 mg/kg	16.39 mg/kg	2.89 mg/kg	-
Acetone	10.6 mg/l	1.06 mg/l	21 mg/l	100 mg/l	30.4 mg/kg	3.04 mg/kg	29.5 mg/kg	0.2 g/kg food

Hygiene Measures

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet. Remove any clothing that becomes wet or contaminated. Contaminated clothing should be placed in a closed container until disposal or decontamination. Warn cleaning personnel of chemical's hazardous properties.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear	**Flammabillity Limit (%)**	1.0 (lower) to 12.0 (higher)
Odour	Solvent	**Oxidising**	N/A
Boiling Point	56 to 110°C @ 760 mmHg	**Vapour Density**	>1.0
Flash Point	- 17 CC (closed cup)	**Density**	0.952 g/cm³ @ STP
Solubility (in water)	Slightly	**VOC**	668 g/l

10. STABILITY AND REACTIVITY

Conditions to Avoid	- Heat, flames and other sources of ignition. Excessive heat for prolonged periods of time.
Materials to Avoid	- Strong oxidisers. Strong reducing agents.
Hazardous decomp products	- Does not decompose under normal conditions. during fire CO and CO_2 are formed.
Dangerous Reactions	- None.

11. TOXILOGICAL INFORMATION

Contains a substance which may cause harm to the unborn child. Solvent vapours are hazardous and may cause nausea, sickness and headaches.

General	- Prolonged and repeated contact with solvents over a long period of time may lead to permanent health problems.
Skin Contact	- Irritating to skin. Prolonged or repeated exposure may cause severe irritation. May be absorbed through the skin.
Eye Contact	- Irritating to eyes. Repeated exposure may cause chronic eye irritation. Spray and vapour in the eyes may cause irritation and discomfort.
Inhalation	- Danger of serious damage to health by prolonged exposure through inhalation. Vapours may cause drowsiness and dizziness. Gas or vapour in high concentrations may irritate respiratory system. In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea.
Ingestion	- May cause discomfort if swallowed. May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication. Pneumonia may result if ingested material containing solvents reaches the lungs.

Toxilogical information on ingredients

	Toluene	Acetone
Acute Toxicity (Oral LD50)	5580 mg/kg (Rat)	5800 mg/kg (Rat)
Acute Toxicity (Dermal LD50)	> 5000 mg/kg (Rabbit)	>9.4 ml/kg (Rabbit)
Acute Toxicity (Inhalation LC50)	> 20 mg/l (Rat)	> 40 ppt (Guinea Pig)

12. ECOLOGICAL INFORMATION

Avigel is not considered to be dangerous to the environment or toxic to fish.

Ecological information on ingredients (Acute Toxicity)

Ingredient / Subject	Species	Medium	Period	Test	Result
Toluene					
fish	Oncorhynchus kisutch	fresh water	96h	LC50	5.5mg/l
invertebrates	Ceriodaphnia dubia	fresh water	48h	LC50	3.78mg/l
algae	Chlorella vulgaris/Chlamydomonas angulosa	fresh water	3h	EC50	134mg/l
microorganisms	Nitrosomonas sp.	fresh water	24h	EC50	84 mg/l
Acetone					
fish	Pimephales promelas	fresh water	96h	LC50	7163 mg/l
invertebrates	Daphnia pulex	fresh water	48h	LC50	8800 mg/l
algae	Microcystis aeruginosa	fresh water	8d	EC3	530 mg/l
microorganisms	Activated sludge	fresh water	30m	EC50	4 to 10 mg/l

Persistence and degradability

There are no data on the degradability of this product.

Bioaccumulative potential

There are no data on the bioaccumulation of this product.

Mobility in soil

This product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. The product is immiscible with water and will spread on the water surface.

PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

13. DISPOSAL CONSIDERATIONS

Contact specialist disposal companies. Dispose of waste and residues in accordance with local authority requirements. Absorb in vermiculite or dry sand and dispose of at a licenced hazardous waste collection point. Incinerate in suitable combustion chamber.

14. TRANSPORT INFORMATION

UN Number	1263
UN Name	Paint-related materials
Transport Class (ADR/RID/ADN)	Class 3: Flammable liquids
Transport Class (IMDG)	3.2
Packing Group (ADR)	II
Packing Group (RID/ADN)	II
Packing Group (IMDG)	II
EMS	F-E, S-E
Emergency Action Code	3YE
Hazard No. (ADR)	33, Highly flammable liquid (flash point below 23°C)
Tunnel Restriction Code	(D/E)

15. REGULATORY INFORMATION

Statutory Instruments

Control of Substances Hazardous to Health.

Approved Code Of Practice

Safety Data Sheets for Substances and Preparations. Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes

Workplace Exposure Limits EH40.

EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation 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, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16th 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.

National Regulations

Control of Substances Hazardous to Health Regulations 2002 (as amended) The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 ("CDG 2009"), SI 2009 No 1348.

16. OTHER INFORMATION

Abbreviations:

N/A not applicable. **ND** not determined. **NR** not regulated.
ADR: European agreement concerning the international carriage of Dangerous goods by road.
CAS International reference numbers for chemical substances. (Chemical Abstracts Service)
DNEL: Derived No-Effect Level.
EC50: Concentration of toxant that provides a response that is half way between a baseline and maximum effect.
EC3: Concentration of toxant that provides a response that is 3% between a baseline and maximum effect.
EINECS: European Inventory of Existing commercial Chemical Substances.
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
HSE EH40: H.S.E. Guidance note EH40 on Occupational Exposure Limits (revised annually), to be used in conjunction with the COSHH regulations.
IMDG: International Maritime code for Dangerous Goods.
LC50: Lethal Concentration, 50 percent. **LD50**: Lethal Dose, 50 percent.
PBT: Persistent Bioaccumulative Toxic. **PNEC**: Predicted No-Effect Concentration.
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure Limit. **TWA:** Time Weighted Average.
vPvB: Very Persistent and Very Bioaccumulative. **WEL**: Workplace Exposure Limit.

Example Label using information from Section 2.2

Avigel

Contains: Toluene

Highly flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of damaging the unborn child.
May cause damage to central nervous system through prolonged or repeated exposure.
Obtain special instructions before use.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: Immediately call a POISON CENTER / doctor / physician.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
In case of fire: Use dry chemical powder, alcohol resistant foam, CO_2 to extinguish.

DANGER **Batch Number: 0123456** **5 Litres**

Polybond Ltd. Unit 6 William Street, Northam, Southampton, Hampshire SO14 5QH
Telephone: 02380 988350 Fax: 02380 988355 Email: sales@polybond.co.uk

Hazard Statements in Full

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to central nervous system through prolonged or repeated exposure.
EUH066	Repeated exposure may cause skin dryness or cracking.

Note: This data sheet does not constitue a user's assessment of workplace risk as required by the Health & Safety At Work Act, COSHH, Management of Health and Safety at Work Regulations or other health and safety legislation