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Section 1: Identification of the Substance and the Company

Product name	97.000 Total Seal
Product class (use)	Protective Coating
Product type	Liquid
Product code	4005
EC#	Naphtha (petroleum): 265-150-3 2-Methoxy-1-Methylethyl Acetate: 203-603-9 Toluene: 203-625-9
CA#	Naphtha (petroleum): 64742-48-9 2-Methoxy-1-Methylethyl Acetate: 108-65-6 Toluene: 108-88-3
Index#	Naphtha (petroleum): 649-327-00-6 2-Methoxy-1-Methylethyl Acetate: 607-195-00-7 Toluene: 601-021-00-3
Company	iSee2, IZ Langevoorde, Groendreef 35, 9880 Aalter, Belgium
Emergency telephone	+32 9 216 67 00

Section 2: Hazard Identification

Classification	Classification according to Regulation (EC) No 1272/2008 (CLP) Flammable liquids - Category 2 Acute toxicity (inhalation) - Category 4 Eye irritation - Category 2A Toxic to reproduction (unborn child) - Category 2 Specific target organ toxicity (single exposure) - Category 3 Ingredients of unknown toxicity in mixture: 37,5%
Hazard statements	Warning - Highly flammable liquid and vapor. Harmful if inhaled. Causes serious eye irritation. Suspected of damaging the unborn child. May cause respiratory irritation. See section 3.
Precautionary statements	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
Label elements	Labelling according to Regulation (EC) No 1272/2008 [CLP].
Additional information	For full text of Hazard- and EU Hazard-statements: see section 16.
Hazard pictograms	



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Section 3: Composition/Information Ingredients

Substance

Mixture

Ingredient(s)	Cas#	EINECS#	% by weight	Classification Hazard Class and Category Code(s)	Classification Hazard Statement Code(s)
Naphtha (petroleum)	64742-48-9	265-150-3	20 - 50	Asp. Tox. 1 Muta. 1B Carc. 1B	H304 H340 H350
2-Methoxy-1-Methyl-ethyl Acetate	108-65-6	203-603-9	20 - 50	Flam. Liq. 3	H226
Toluene	108-88-3	203-625-9	<1,0	Flam. Liq. 2 Skin Irrit. 2 Asp. Tox. 1 STOT SE 3 STOT RE 2 Repr. 2	H225 H315 H304 H336 H373 H361d

Section 4: First Aid Measures

Eye Contact

Potential acute health effects: causes serious eye irritation.

Over-exposure symptoms: pain or irritation, watering, redness.

Measures: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek physician immediately.

Skin Contact

Potential acute health effects: Defatting to the skin. May cause dryness and irritation.

Over-exposure symptoms: Irritation, dryness, cracking, reduced fetal weight, increase in fetal deaths, skeletal malformations.

Measures: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Ingestion

Potential acute health effects: No known significant effects or critical hazards.

Over-exposure symptoms: reduced fetal weight, increase in fetal deaths, skeletal malformations.

Measures: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

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Inhalation

Potential acute health effects: respiratory tract irritation, coughing, reduced fetal weight, increase in fetal weight, increase in fetal deaths, skeletal malformations.

Over-exposure symptoms: pain or irritation, watering, redness.

Measures: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Section 5: Fire-Fighting Measures

Flammability Classification Class 2

Lowest Flash Point 38°C

Explosion Level Lower: 0,7 and Upper: 10,2

Hazardous thermal decomposition products Decomposition products may include the following materials: carbon oxides.

Suitable Extinguishing Media Use dry chemical, CO², water spray (fog) or foam.

Unsuitable Extinguishing Media Do not use water jet.

Special Fire Fighting Procedures Clear fire area of unprotected personnel. Do not enter confined space without helmet, face shield, bunker coat, gloves, rubber boots, and a positive pressure NIOSH approved self contained breathing apparatus. Fight fire from a safe distance or a protected location.

Heat Protection Procedures Containers exposed to intense heat from fires should be cooled with water to prevent vapour pressure build up which could result in container rupture.

Unusual Fire and Explosion Hazard This liquid and vapours are a dangerous fire hazard and moderate explosion hazard when exposed to heat, flame or any source of ignition. Vapours may be heavier than air and may travel along the ground to distant ignition source and flash back. Keep welding or cutting equipment away from the product.

Section 6: Accidental Release measures

Personal precautions, Protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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	<p>For emergency personnel: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".</p>
Environmental precautions	<p>Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).</p>
Methods and material for containment and cleaning-up	<p>Small spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.</p> <p>Large spill: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows.</p> <p>Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.</p>

Section 7: Handling & Storing

Storing Precautions	<p>Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.</p>
Handling Precautions	<p>Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood.</p>

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Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Hygiene Precautions

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Special Precautions

Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts. For information on Physical & Chemical data, see section 9.

Section 8: Exposure Control & Personal Protection

Occupational exposure limits

Ingredient(s) name	Exposure limits
Naphtha (petroleum), hydrotrated heavy	OEL (GESTIS) Eight Hours: Short Term: 300 mg/m ³ 600 mg/m ³ 50 ppm 100 ppm
2-Methoxy-1-Methylethyl acetate	OEL (Directive 2000/39/EC) Eight Hours: Short Term: 275 mg/m ³ 550 mg/m ³ 50 ppm 100 ppm
Toluene	OEL (Directive 2006/15/EC) Eight Hours: Short Term: 192 mg/m ³ 384 mg/m ³ 50 ppm 100 ppm

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Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

Chemical splash goggles.

Skin protection

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

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Gloves	For prolonged or repeated handling, use the following type of gloves: Chloroprene may be used, other like butyl rubber, nitrile rubber are recommended.
Body protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Naphtha (petroleum)								
DNELs	Workers				Consumers			
Route of exposure	Acute effects local	Acute effects systemic	Chronic effects local	Chronic effects	Acute effects local	Acute effects systemic	Chronic effects local	Chronic effects
Inhalation	1066,67 mg/m ³	1286,4 mg/m ³	-	-	640 mg/m ³	1152 mg/m ³	-	-
Dermal	Low H	High H	-	-	Low H	High H		
2-Methoxy-1-Methylethyl acetate								
DNELs	Workers				Consumers			
Route of exposure	Acute effects local	Acute effects systemic	Chronic effects local	Chronic effects	Acute effects local	Acute effects systemic	Chronic effects local	Chronic effects
Inhalation	550 mg/m ³	No hazard identified	-	-	No hazard identified	No hazard identified	-	-
Dermal	No hazard identified	No hazard identified	-	-	No hazard identified	No hazard identified	-	-

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Environmental protection target

Naphtha (petroleum)	PNECs
Fresh water	No data available
Fresh water sediments	No data available
Marine water	No data available
Marine sediments	No data available
Sewage treatment plant (STP)	No data available
Soil (agricultural)	No data available
Air	No hazard identified

2-methoxy-1-methylethyl acetate	PNECs
Fresh water	635 µg/l
Fresh water sediments	3,29 mg/kg sediment dw
Marine water	63,5 µg/l
Marine sediments	329 µg/kg sediment dw
Sewage treatment plant (STP)	100 mg/l
Soil (agricultural)	290 µg/kg soil dw
Air	No hazard identified

Section 9: Physical & Chemical Data

Physical state	Liquid
Boiling point	> 38°C
Flash point	3,89°C - with closed cup
Material supports combustion	Yes
Vapour pressure	0,36 kPa (2,7mm Hg) - at room temperature
Evaporation rate	0,14 (Slower than Butyl Acetate =1)
Lower explosive limit	1,2%
Relative density	0,91
Density	7,59 lbs/gal
Solubility	Insoluble in cold water
Viscosity	Kinematic (40°C): >0,21cm ² /s (> 21cSt)
Volatile by volume	66%
Volatile by weight	60,61%
Solid (w/w)	39,39%

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pH	No data available
Melting point	No data available
Specific gravity	No data available
pH decomposition temperature	No data available
Autoignition temperature	No data available

Section 10: Stability & Reactivity

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	This product is stable.
Hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous decomposition	Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.
Materials to avoid	Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Conditions to avoid	When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

Section 11: Toxicological Information

Ingredient(s) name	Classification IARC	Category for single exposure	Category for repeated exposure	Aspiration hazard
Naphtha (petroleum), hydrotrated heavy	-	-	-	Cat 1
2-Methoxy-1-Methylethyl acetate	-	Cat 3	-	-
Toluene	3	Cat 3	Cat 2	-

Information on hazard classes as defined in regulation (EC) No 1272/2008

	Naphtha (petroleum)	2-Methoxy-1-Methylethyl acetate
Acute toxicity	LD ₅₀ 5000 mg/kg bw	Oral route: Adverse effect observed LD50 6 190 mg/kg bw
Skin corrosion/irritation	Adverse effect observed (irritating)	No adverse effect observed (not irritating)
Germ cell mutagenicity	No data available	No data available

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	Naphtha (petroleum)	2-Methoxy-1-Methylethyl acetate
Serious eye damage/irritation	No adverse effect observed (not irritating)	No adverse effect observed (not irritating)
Respiratory or skin irritation	No adverse effect observed (not sensitising)	No adverse effect observed (not irritating)
Carcinogenicity	No adverse effect observed NOAEC 9869 mg/m ³ (chronic)	Inhalation route: No adverse effect observed NOAEC 11 058 mg/m ³ (chronic)
Reproductive toxicity Effect on fertility Effect on developmental toxicity	Inhalation route: No adverse effect observed NOAEC 20 000 mg/m ³ (chronic) Dermal route: No adverse effect observed NOAEL 500 mg/kg bw/day (subchronic) Inhalation route: No adverse effect observed NOAEC 23 900 mg/m ³ (subchronic)	Oral route: No adverse effect observed NOAEL 1000 mg/kg bw/day (subacute) Inhalation route: No adverse effect observed NOAEC 5 400 mg/m ³ (subchronic)
Germ cell mutagenicity	No data available	No data available

Target organs Contains material which causes damage to the following organs: brain, eyes, central nervous system (CNS). Contains material which may cause damage to the following organs: kidneys, upper respiratory tract.

Potential chronic health effects General: Prolonged or repeated contact can decrease the skin and lead to irritation, cracking and/or dermatitis.
Teratogenicity: Suspected of damaging the unborn child.
Other: No known significant effects or critical hazards for: carcinogenicity, mutagenicity, developmental effects or fertility effects.

Acute toxicity estimates Inhalation (vapors): ATE value: 14,6 mg/l

Section 12: Ecological Information

Naphtha (petroleum), hydrotreated heavy

Short-term toxicity to fish LL50 (4 days) 8,2 - 10 mg/l

Long-term toxicity to fish EL50 (21 days) 10 mg/l
NOELR (21 days) 2,6 mg/l

Toxicity to microorganisms EC50 (40 h) 15,41 mg/l

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Toxicity to aquatic algae and cyanobacteria	EL50 (4 days) 3,7 mg/l EL50 (72 h) 3,1 mg/L NOELR (72 h) 500 µg/l
Short-term toxicity to aquatic invertebrates	EL50 (48 h) 4,5 mg/l NOELR (48 h) 500 µg/l
Long-term toxicity to aquatic invertebrates	NOELR (21 days) 2,6 - 16 mg/l EL50 (21 days) 10 - 40 mg/l

2-Methoxy-1-Methylethyl acetate

Bioaccumulative potential	LogPow: 0,56 - Potential: low
Toxicity to fish	LC50 (4 days) 100 - 180 mg/l LC0 (4 days) 100 mg/l LC100 (4 days) 180 mg/l NOEC (4 days) 100 mg/l NOEC (14 days) 47,5 mg/l LC50 (14 days) 63,5 mg/l
Toxicity to aquatic invertebrates	EC50 (48 h) 500 mg/l EC0 (48 h) 500 mg/l EC100 (48 h) 500 mg/l NOEC (21 days) 100 mg/l EC50 (21 days) 100 mg/l
Toxicity to aquatic algae and cyanobacteria	EC50 (4 days) 1 g/l NOEC (4 days) 1 g/l LOEC (4 days) 1 g/l

Toluene

Biodegradability Toluene	Readily
Bioaccumulative potential	LogPow: 2,73 - Potential: Low

Section 13: Disposal Methods

This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 91/689/EEC. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required. Do not dump into any sewers, on the ground, or into any body of water.

Dispose of product in accordance with applicable local, county, state and federal regulations. Steps to be taken in case material is released or spilled: Stay up wind and away from spill unless wearing appropriate protective equipment. Stop and/or contain discharge if it may be done safely. Keep all sources of ignition away. Ventilate area of spill. Use non-sparking tools for cleanup. Cover with inert material to reduce fumes. Keep out of drains, sewers, or waterways. Contact fire authorities. Notify local health and pollution control agencies. Call spill response teams if large spill. Do not flush to sewer, watershed or waterway.

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Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: 'Handling & Storage' and Section 8: 'Exposure Controls/ Personal Protection' for additional handling information and protection of employees. Section 6. Accidental release measures.

Section 14: Transport Information

	ADR	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	II	II	II
Environmental hazards	No	No	No
Marine pollutant substances	Not applicable See section 13	Not applicable See section 13	Not applicable See section 13

Special precautions for user Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15: Regulatory Information

Inventory All components are listed or exempted (TSCA 8b).

Classification Fire hazard
 Immediate (acute) health hazard
 Delayed (chronic) health hazard

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Naphtha (petroleum), hydrotreated heavy	Yes	No	No	Yes	No
2-methoxy-1-methylethyl acetate	Yes	No	No	No	No
Toluene	Yes	No	No	Yes	Yes

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Section 16: Other Information

Toxicological information Toluene: < 1,0%

The customer is responsible for determining the PPE code for this material.

Hazard Statements H336: May cause drowsiness or dizziness.
 H226: Flammable liquid and vapour.
 H304: May be fatal if swallowed and enters airways.
 H340: May cause genetic defects.
 H350: May cause cancer.

Key to abbreviations

EC#	European Community Number
AINECS	European Inventory of Existing Commercial Substances
ADR	Alternative Dispute Resolution, European agreement concerning the international carriage of dangerous goods by road.
ATE	Acute Toxicity Estimate
A	Acceptable Maximum Peak
ACGIH	American Conference of Governmental Industrial Hygienists.
BCF	Bioconcentration Factor
bw	Body weight
C	Ceiling Limit
CAS#	Chemical Abstracts Service Number
DNEL	Derived No Effect Level
EU	European Union
F	Fume
GHS	Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association
H	Hazard
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
icPa	Kilo Pascal
IMDG	International Maritime Dangerous Goods
IPEL	Internal Permissible Exposure Limit
LogPow	logarithm of the octanol/water partition coefficient
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
mm Hg	Millimetre of Mercury
R	Respirable
S	Potential skin absorption
SR	Respiratory sensitization
SS	Skin sensitization
STEL	Short term Exposure limit values
TD	Total dust

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TLV	Threshold Limit Value
TWA	Time Weighted Average
UN	United Nations
ppm	Parts per million

Notes:

This datasheet has been produced to advise our customers regarding possible hazards with iSee2 Total Seal in recognition of our responsibility to the Health and Safety at Work Act. The use of our products does not entail any special hazard if they are handled according to normal good safety practices. Nevertheless, we would draw your attention to some specific information concerning their safe use. This information should not be construed as indicative of any new or unusual hazards that we have discovered but rather that you should be properly informed of their characteristics and to discharge our duty as outlined in the Act.