Safety Data Sheet

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

1.1 Product identifier **MODELHART**

UFI code W75H-NEYD-M92T-AYXT

1.2. Relevant identified uses of the substance or mixture and uses advised against
Product is used for hardening the model from investment material by dipping method with agar-agar reversible duplicating material. For professional use only.

1.3 Details of the supplier of the safety data sheet

		Production:
Manufacturer/Supplier:	INTERDENT d.o.o.	INTERDENT d.o.o.
Street:	Opekarniška cesta 26	Dol 1
Country code /Postal code/City:	SI-3000 Celje	SI-3342 Gornji Grad
Telephone:	+386(0) 425-62-00	
Fax:	+368(0) 490-62-02	

1.4 Emergency telephone number

Emergency phone:	112 (EU) +386(0) 425-62-00 (Mon. – Fri.: 8.00 – 16.00)

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008:

Hazard class	Hazard category	Hazard statements
Flammable liquids	3	H226 Flammable liquid and vapour.
Specific target organ toxicity – Single exposure	3, Narcosis	H336 May cause drowsiness and dizziness.

2.2 Label elements
Labelling according to Regulation (EC) No. 1272/2008:
Hazard pictograms:

Signal word: WARNING

Hazard statements:
H226 Flammable liquid and vapour.
H336 May cause drowsiness or dizziness.

Additional notice hazard statement:
EUH066: Repeated exposure may cause skin dryness or cracking

Precautionary statement:
Prevention
P210 Keep away from heath / sparks / open flame / hot surface – No smoking.
P233 Store in a well-ventilated place. Keep container tightly closed.
P261 Avoid breathing vapours.
P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response
P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water/shower.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.

Disposal:
P501 Dispose of contents/container in accordance with national legislation.

Component on the label:
N-butyl acetate

2.3 Other hazards
PBT and vPvB evaluations are in Section 12.5

SECTION 3: Composition / information on ingredients

3.1 Substance
Product is a mixture.

3.2 Mixture
Residue in product: resin

Chemical name	Index number EC number CAS number	%	Classification according to EC 1272/2008	
			Hazardous class/hazardous category	Hazardous phrases
N-butyl acetate	607-025-00-1 204-658-1 123-86-4	40-50	Flam.Liq.3 STOT SE3	H226 H336
Xylene	601-022-00-9 215-535-7 1330-20-7	3-7	Flam. Liq. 3 Acute Tox. 4 Acute Tox. 4 Skin Irrit. 2	H226 H332 H312 H315
Ethylbenzene	601-023-00-4 202-849-4 100-41-4	0,5-2,5	Flam. Liq. 2 Acute Tox. 4 STOT RE 2 Asp. Tox. 1	H225 H332 H373 H304

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Inhalation:
Provide fresh air, artificial respiration, if necessary, warmth. In case of unconsciousness unconscious position and transport in stable lateral position. Get medical attention.

Skin contact:
Remove contaminated clothing. First wash the skin with acetone or ethyl acetate to remove the resin. After removing resin wash skin with soap and water. Use protective cream.

E*ye contact:*
Rinse open eye with water for several minutes. If symptoms persist, seek medical advice.

Ingestion:
Rinse mouth with water and drink it cca. 100mL. Seek medical advice. Do not induce vomiting. In case of vomiting after ingestion can come to aspiration in lungs and suffocation or chemical pneumonia. In the case of vomiting install injured in the recovery position.

4.2 Most important symptoms and effects, both acute and delayed
Symptoms: cough, nausea, vomiting, headache, fainting, sleepiness, drowsiness.
Effects: the risk of severe damage to the lungs (inhalation). ingestion of large quantities may cause damage to the central nervous system (eg. dizziness, headache).

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

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable:

CO2, powder, water spray, alcohol-resistant foam. Fight larger fires with water spray or foam alcohol-resistant.

Unsuitable:

Voluminous sprayed jet of water.

5.2 Special hazards arising from the substance or mixture

Specific risk during extinguishing: Vapors can be invisible and heavier than air and pulled across the floor. Vapors may form explosive mixtures with air and can also break down the flame of the fire around. In case of fire may produce hazardous decomposition products such as carbon monoxide (CO) and carbon dioxide (CO2).

5.3 Advice for firefighters

Special protective equipment for firefighting:

Special protective equipment: In case of fire, wear self-contained breathing apparatus. Secure the body appropriately (wear full protective clothing kit).

Other instructions

Endangered containers with hazardous materials cool with water spray. Heating causes rise in pressure - danger of explosion of closed containers. Water used for fire-fighting is not allowed to drain into sewers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing. Ensure un protective people. Take care for providing fresh air into space. Keep away from source of fire. Prevent from skin and eyes contact. Do not inhale vapour.

6.2 Environmental precautions

Do not allow to enter subsoil/earth. Do not allow to enter sewer system / surface waters / groundwater.

6.3 Methods and material for containment and cleaning up

Absorb overflow with an inert material that absorbs liquid (e.g. Sand, diatomaceous earth, blotting paper, earth). Sticky residue purifies with butyl acetate or acetone. Material soaked with the product collect in separate containers and dispose of in accordance with the law on waste.

6.4 Reference to other sections
Safe handling: see section 7. Personal protection equipment: see section 8. Disposal: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Keep in tightly sealed container. Use only in well ventilated areas. Use protective equipment. Prevent contact with skin and eyes. Do not inhale vapours or aerosol. In case of accident shower bad for eyes must be nearby.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage areas:
Store in a field where the floor is resistant to solvents. Store in tightly closed containers to prevent evaporation.

Advice on protection against fire and explosion:
Keep away from sources extinguish – do not smoke. Vapors may form explosive mixtures
with air. The vapors are heavier than air and dragging on the floor.

Storage:
Store in tightly sealed containers. Keep away from food, drink and feed. Do not store together with oxidizing and self-igniting products. Incompatible with strong acids, bases and strong oxidizing agents.

7.3. Specific end use(s)
The product should be used in accordance with the required instructions for use on the label. The product is intended for professional use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Ingredients with occupational exposure limit values to be monitored in the workplace.

n-butyl acetate		
OEL	Current exposure: 600 mg/m3, 124 ppm Long-term exposure: 300 mg/m3, 62 ppm Y	
Oral **Dermal**	**DNEL**	3,4 mg/kg body weight /day (users-long-term exposure-systemic effect)

Inhalation		7 mg/kg body weight /day (workers-long-term exposure-systemic effect) 3,4 mg/kg body weight /day (users-long-term exposure-systemic effect) 48 mg/m^3 (workers-long-term exposure-systemic effect) 12 mg/m3 (users-long-term exposure-systemic effect)
	PNEC	Fresh water: 0,18mg/l Sea water: 0,018mg/l Release intervals: 0,36mg/l Waste water treatmen plan: 35,6 mg/l The sediment in the fresh water associated with the weight of the dry material: 0,981 mg/kg The sediment in the sea water associated with the weight of the dry material: 0,0981mg/kg Floor associated with the weight of the dry matter: 0,0903 mg/kg

Xylene 1330-20-7

OEL	Current exposure: 442 mg/m3, 100 ppm Long-term exposure: 221 mg/m3, 50 ppm
DNEL	Worker inhalation 442 mg/m3 Short term, systemic Worker inhalation 442 mg/m3 Short term, local Worker Dermal 212 mg/kg Long term, systemic Worker inhalation 221 mg/m3 Long term, systemic Consumer inhalation 260 mg/m3 Short term, systemic Consumer inhalation 260 mg/m3 Short term, local Consumer Dermal 125 mg/kg Long term, systemic Consumer inhalation 65.3 mg/m3 Long term, systemic Consumer Oral 12.5 mg/kg/day Long term, systemic Worker inhalation 221 mg/m3 Long term, local Consumer inhalation 65.3 mg/m3 Long term, local
PNEC	Fresh water 0.327 mg/l Marine water 0.327 mg/l Intermittent water release 0.327 mg/l Sewage treatment plant 6.58 mg/l Sediment (fresh water) 12.46 mg/kg Sediment (marine water) 12.46 mg/kg Soil 2.31 mg/kg

Biological Monitoring Guidance Values (United Kingdom)
650 mmol/mol creatinine Medium: urine Time: post shift Parameter: Methyl hippuric acid
Biological Exposure Indices (ACGIH)

1.5 g/g creatinine (urine - end of shift)

Ethylbenzene 100-41-4

OEL	Current exposure: 884 mg/m3, 200 ppm Long-term exposure: 442 mg/m3, 100 ppm
DNEL	Worker inhalation 77 mg/m3 Long term, systemic Worker inhalation 293 mg/m3 Long term, local Worker Dermal 180 mg/kg/day Long term, systemic General Population inhalation 15 mg/m3 Long term, systemic General Population Oral 1.6 mg/kg/day Long term, systemic
PNEC	Fresh water 0.1 mg/l Marine water 0.01 mg/l Intermittent water release 0.1 mg/l Sewage treatment plant 9.6 mg/l Sediment (fresh water) 13.7 mg/kg Sediment (marine water) 1.37 mg/kg Soil 2.68 mg/kg Oral (Secondary Poisoning) 20 mg/kg food

Biological Exposure Indices (ACGIH)
0.15 g/g creatinine (urine - end of shift)

8.2 Exposure controls
Personal protective equipment in accordance with Regulation (EU) 2016/425 And List of harmonized standards for personal protection equipment 2018/C 209/03.

Personal protective equipment
General protection and hygienic measures:
Immediately take off the contaminated clothes. Don't inhale gas, aerosols. During work do not eat, drink or smoke. Wash hand before break and when you finish with work.

Respiratory protection:
With sufficient ventilation and with regards to intended use any special protection is not necessary, otherwise mask EN 140:1998/AC:1999 with protective filter type A [boiling point >65°C (149°F)] (EN14387:2004+A1:2008).

Hand protection:
Wear suitable protective gloves. Chemically resistant gloves in accordance with EN 374-1. Solvent-resistant gloves, e.g. nitrile gloves with a minimum thickness of 0.2 mm or Type B.

Skin and body protection:
Protective antistatic coat (EN ISO 1149-5:2008) and antistatic footwear (EN ISO 20345:2011).

Eye protection:
Wearing safety goggles (EN 166:2001).

8.3 Control of environment protection
Common instructions: Do not wash rinse with fresh water or to drainage system. If the aquaducte or drainage system is contaminated, inform competent authorities immediately.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Information for n-butyl acetate	
Physical state	Liquid
Colour	colourless
Odour	aromatic
pH	n.a.
Boiling point	126°C(1,013kPa)
Inflammation	27°C
Flammability	415°C
Upper explosion limit	7,5% (V)
Lower explosion limit	1,2% (V)
Oxidation	n.a.
Vapour pressure	15 kPa (20°C)
Solubility	n.a.
Solubility in water	n.a.
Partition coefficient: n-octanol/water	n.a.
Viscosity	0,73 mPa·s (20°C)
Vapour density	n.a.
Evaporation rate	n.a.

Information for Modelhart
Solubility in water: insoluble
Density: 0,9 g/mL (20°C) – value for product

9.2 Other information
No additional information relevant to safe use.

SECTION 10: Stability and reactivity

10.1 Reactivity
Stable under recommended storage conditions and the intended use.

10.2 Chemical stability
Stable under normal conditions and proper use.

10.3 Possibility of hazardous reaction

No information

10.4 Conditions to avoid
Flame and sparks.

10.5 Incompatible materials
Strong oxidizing agents, strong acids and bases

10.6 Hazardous decomposition products
In case of fire: Carbon monoxide and carbon dioxide.
Dangerous products decomposition: When pre-heating the investment material such the gases to the outside.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
Experience with human exposure: Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product. When burning, form toxic gases. Harmful effects if inhaled show up gradually.

Chemical name: n-butyl acetate
Acute toxicity
Oral: LD_{50} (rat) = 10,760 mg/kg (OECD 423)
Dermal: LD_{50} (rabbit) > 14,112 mg/kg (OECD 402)
Inhalation: LC_{50} (rat, 4 h) = 23.4 mg/L (OECD 403)
Corrosion/skin irritation: Not irritating to skin (rabbit, OECD 404).
Serious eye damage/eye irritation: Causes severe eye irritation (OECD 405).
Respiratory or skin sensitization: Does not cause sensitization (guinea pig, maximization test, OECD 406; mouse ear swelling test, MEST).
Mutagenicity for germ cells: Negative (Ames test); classification criteria not met.
Carcinogenicity: Based on available data, criteria for classification not met.
Reproductive toxicity: Based on available data, criteria for classification not met.
STOT – single exposure: May cause drowsiness or dizziness.
STOT – repeated exposure: Based on available data, criteria for classification not met.
Aspiration hazard: Based on available data, criteria for classification not met.

Chemical name: Xylene
Xylene has an acute oral LD50 (rat) of > 3523 mg/kg, acute dermal LD50 (rabbit) value of 4200 mg/kg, and an acute 4-hour LC50 (rat) of 29 mg/l (vapor). Inhalation of vapors may be irritating to the nose and throat. Inhalation of high concentrations may result in nausea, vomiting, headache, ringing in the ears, and severe breathing difficulties, which may be delayed in onset. High vapor concentrations are anesthetic and central nervous system depressants. Ingestion causes burning sensation in mouth and stomach, nausea

vomiting and salivation. Minute amounts aspirated into the lungs can produce a severe hemorrhagic pneumonitis with severe pulmonary injury or death. Chronic inhalation can cause headache, loss of appetite, nervousness and pale skin. Skin contact results in moderate irritation and loss of natural oils. Repeated or prolonged skin contact may cause a skin rash. May be absorbed through the skin. Vapors cause eye irritation. Splashes cause severe irritation, possible corneal burns and eye damage. Repeated exposure of eyes to high concentrations of vapor may cause reversible eye damage. Chronic, repeated exposure may cause blood cell damage resulting in low blood cell count. May damage liver and kidneys. Xylene has been investigated for reproductive toxicity and may cause teratogenic effects.

Chemical name: Ethylenebenzene
Ethylbenzene has acute oral (rat) and dermal (rabbit) LD50 values of 3500 mg/kg and 15400 mg/kg respectively. The 4-hour inhalation LC50 in rats is 2180 ppm. It is a mild eye (rated 2 on a scale of 10) and a mild skin (rated 4 on a scale of 10) irritant. Prolonged exposure to the vapor of ethylbenzene may cause irritation of the eyes and upper respiratory tract, vertigo, motor ataxia, unconsciousness, and hematological disorders and hepatobiliary complaints. The International Agency for Research on Cancer has evaluated ethylbenzene and classified it as a possible human carcinogen (Group 2B) based on sufficient evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. Developmental toxicity studies in rats indicate skeletal malformation and reduced foetal weight.

11.2 Other information
No additional data available.

SECTION 12: Ecological information

12.1 Toxicity
Chemical name: n-butyl acetate 123-86-4
Toxicity to Fish:
LC50 = 100 mg/L - Lepomis macrochirus (96h)
LC50 17 - 19 mg/L - Pimephales promelas (96h)

Toxicity to Water Flea: Not available

Toxicity to Algae: EC50 = 674.7 mg/L - Desmodesmus subspicatus (72h)

Partition coefficient: 1.81-2.3

Chemical name: Xylene 1330-20-7
Toxicity to Fish:
LC50 = 13.4 mg/L - Pimephales promelas (96h)

LC50 2.661 - 4.093 mg/L - Oncorhynchus mykiss (96h)
LC50 13.5 - 17.3 mg/L - Oncorhynchus mykiss (96h)
LC50 13.1 - 16.5 mg/L - Lepomis macrochirus (96h)
LC50 = 19 mg/L - Lepomis macrochirus (96h)
LC50 7.711 - 9.591 mg/L - Lepomis macrochirus (96h)
LC50 23.53 - 29.97 mg/L - Pimephales promelas (96h)
LC50 = 780 mg/L - Cyprinus carpio (96h)
LC50 > 780 mg/L - Cyprinus carpio (96h)
LC50 30.26 - 40.75 mg/L - Poecilia reticulata (96h)

Toxicity to Water Flea:
EC50 = 3.82 mg/L - water flea (48h)
LC50 = 0.6 mg/L - Gammarus lacustris (48h)

Toxicity to Algae: Not available

Partition coefficient: 2.77-3.15

Chemical name: Ethylbenzene 100-41-4
Toxicity to Fish:
LC50 11.0 - 18.0 mg/L - Oncorhynchus mykiss (96h)
LC50 = 4.2 mg/L - Oncorhynchus mykiss (96h)
LC50 7.55 - 11 mg/L - Pimephales promelas (96h)
LC50 = 32 mg/L - Lepomis macrochirus (96h)
LC50 9.1 - 15.6 mg/L - Pimephales promelas (96h)
LC50 = 9.6 mg/L - Poecilia reticulata (96h)

Toxicity to Water Flea: EC50 1.8 - 2.4 mg/L - Daphnia magna (48h)

Toxicity to Algae:
EC50 = 4.6 mg/L - Pseudokirchneriella subcapitata (72h)
EC50 > 438 mg/L - Pseudokirchneriella subcapitata (96h)
EC50 2.6 - 11.3 mg/L – Pseudokirchneriella subcapitata (72h)
EC50 1.7 - 7.6 mg/L – Pseudokirchneriella subcapitata (96h)

Partition coefficient: 3.6

12.2 Persistence and degradability
Effect duration: no information available

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
Surface tension: 61,3 mN/m (1g/l; 20°C) (OECD Test Directive 115)
Mobility: No information

12.5 Results of PBT and vPvB assessment
Not considered to be persistent, bioaccumulative or toxic.
Not considered to be very persistent and very bioaccumulative.

12.6 Endocrine disrupting properties
No data available.

12.7 Other adverse effects
Do not rinse in surface water or sanitary sewer system. Avoid penetration into the ground.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Product:
It is prohibited to remove with normal waste. It should be a special disposal in accordance with local regulations. Avoid runoff into watercourses and drains. Contact disposers.

Contaminated packaging:
Packaging must be disposed of in the same manner as product. Do not burn packaging.

Classification number of waste:
16 03 05 * organic wastes containing dangerous substances

Contaminated packaging category:
15 01 11* Metallic packaging containing a dangerous solid porous matrix (eg asbestos), including empty pressure containers.

Safety Data Sheet

SECTION 14: Transport Information

	ADR/RID	IMDG	IATA
14.1 UN number	1123		
14.2 UN proper shipping name	Butyl acetate		
14.3 Transport hazard class(es)			
Class	3		
Classification code	/	/	/
Label	3		
Hazard identification number	/	/	/
Transport category (Tunnel restriction code)	(D/E)	/	/
EmS	/	/	/
14.4 Packing group	III		
14.5 Environmental hazards	No environmental hazard		
14.6 Special precautions for user	No special precautions		
14.7 Maritime transport in bulk according to IMO instruments	No data available		
Not intended for shipment by inland waterways in tank vessels.			

SECTION 15: Regulatory information

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

The product is classified in accordance with the requirements of Regulation (EC) No 1272/2008 and 1907/2006, including their amendments, and the corresponding national legislation: the Implementing Regulation of the EU Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Official Gazette of the Republic of Slovenia, No. 23/08 and 191/20, and the Implementing Regulation of EU Regulation No 1272/2008 of the European Parliament and of the Council of 16 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, Official Gazette of the Republic of Slovenia, No. 56/10.

15.2 Chemical safety assessment
No data available.

SECTION 16: Other information

Revision:
Version 09 issued on July 2025 in accordance with EC 1907/2006 (Commission Regulation (EU) 2015/830) and EC 1272/2008.

Revision in accordance to changes in COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Legend of abbreviations:
ADR – European agreement concerning the international carriage of dangerous goods by road
CAS – Chemical Abstracts Service
CLP – Classification, Labeling and Packaging
CMR – Carcinogenic, Mutagenic or toxic for Reproduction
DNEL - Derived no-effect level
EC_{50}: Half maximal effective concentration
EmS – Emergency Schedule
GHS – Globally Harmonised System of Classification and Labeling of Chemicals
IATA – International Air Transport Association
IMDG – International Maritime Dangerous Goods Code
LC_{50}: Lethal concentration, 50%
LD_{50}: Median lethal dose; the dose causing 50% lethality
MARPOL – International convention for the prevention of pollution from ships
NOEC - No-observed-effect concentration
OEL - Occupational exposure limit
OECD - Organisation for Economic Co-operation and Development
PBT – Persistent Bioaccumulative Toxic
PNEC: Predicted no-effect concentration
Ppm – parts per million
REACH – Registration, Evaluation, Authorisation and Restriction of Chemicals
RID – Regulation concerning the international carriage of dangerous goods by rail
vPvB – very Persistent and very Bioaccumulative

References:
- Safety Data Sheet of the raw material manufacturer
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council (REACH), amended by 2015/830/EU
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council (CLP, EU GHS)
- Commission Directive 2009/161/EU

- Martindale: The Extra Pharmacopoeia, 13th edition
- Website: https://chem.echa.europa.eu/
- European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
- Regulation on the implementation of the EU Regulation on personal protective equipment (Official Gazette of the RS, No. 33/18)
- List of harmonized standards for personal protective equipment (C 412 / 11.12.2015, with all amendments and corrections)
- Occupational Health and Safety Act (Official Gazette of the RS, No. 43/2011)
- Waste Management Regulation (Official Gazette of the RS, No. 77/22 and 113/23)
- Regulation on packaging and packaging waste (Official Gazette of the RS, No. 54/21, 208/21, 44/22 – ZVO-2 and 120/22)
- European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
- Decision on the publication of Annexes A and B to the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
- Dangerous Goods Regulations (DGR) for air transport (IATA)
- International Maritime Dangerous Goods Code (IMDG)
- EU – Commission Directive 98/24/EC, with all amendments and modifications
- Regulation on the protection of workers from risks related to exposure to chemical substances at work (Official Gazette of the RS, No. 72/2021, 29/2024, 26/2025)
- Regulation on the protection of workers from risks related to exposure to carcinogenic, mutagenic, or reprotoxic substances at work (Official Gazette of the RS, No. 29/2024, 26/2025)

Disclaimer of expressed and implied warranties:
The information contained in the safety data sheet refer to the manufacturer's current knowledge and are a guideline for the safe use, handling, disposal, storage and transportation, but cannot be used as a guarantee. The information relates only to the specific product and is not suitable for combining with other materials or for use in another process as described in the instructions.