Safety Data Sheet

according to Regulation (EC) No 1907/2006

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

1.1. Product identifier

Blue Marker

Further trade names

Article number:
580-0001, 580-0006, 580-0001M, 580-0018, 580-6018 (Blue Marker)
580-2001, 580-2006, 580-2018, 580-2618 (Blue Marker Diluent)

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

Use of the substance/mixture

Liquid contact paint

1.3. Details of the supplier of the safety data sheet

Company name:	YETI Dentalprodukte GmbH	
Street:	Industriestrasse 3	
Place:	D-78234 Engen	
Telephone:	+49 7733-9410-0	Telefax: +49 7733-9410-22
Responsible Department:	sdb@yeti-dental.com Responsible for the safety data sheet: sds@gbk-ingelheim.de	

1.4. Emergency telephone number:

+49 7733-9410-0 (Mo-Do 8:00 - 16:30, Fr 8:00 - 15:00)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:
Flammable liquid: Flam. Liq. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Specific target organ toxicity - single exposure: STOT SE 3
Hazard Statements:
Highly flammable liquid and vapour.
Causes serious eye irritation.
May cause drowsiness or dizziness.

2.2. Label elements

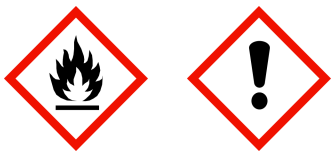
Regulation (EC) No. 1272/2008

Hazard components for labelling

propan-2-ol; isopropyl alcohol; isopropanol

Signal word: Danger

Pictograms:



Hazard statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.

P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.
P235	Keep cool.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international/ regulations.

Additional advice on labelling

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

2.3. Other hazards

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture containing following substances with additives

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol			50 - 70 %
	200-661-7	603-117-00-0	01-2119457558-25	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove contaminated soaked clothing immediately. Keep warm and calm injured person. Take away from danger area and lay down affected person.

After inhalation

Move to fresh air in case of accidental inhalation of vapours or decomposition products.
Refer for medical treatment.

After contact with skin

Wash off with soap and plenty of water.
Consult a doctor if skin irritation persists.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical treatment by eye specialist.

After ingestion

Do not induce vomiting. Rinse out mouth and give plenty of water to drink. Never give anything by mouth to an unconscious person. Summon a doctor immediately. Do not give neutralising liquids.

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

Following inhalation/eye contact: irritation of the mucous membranes, a numbing effect, impaired reaction times and sense of coordination are possible at high concentra-tions. Headache, dizziness, nausea, etc. may arise following prolonged inhalation of high vapour concentrations.

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

In case of the person being unconscious summon a doctor immediately.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, dry chemical, carbon dioxide (CO2), water-spray.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Fire may produce: carbon monoxide and carbon dioxide. Vapours are heavier than air and spread along ground. Flashback at a long distance is possible.

5.3. Advice for firefighters

Use breathing apparatus with independent air supply.
Protective suit.

Additional information

Vapours are heavier than air and spread along ground. The vapour/air mixture is explosive, even in empty, uncleaned receptacles. Risk of bursting of the receptacle. Cool containers at risk with water spray jet. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

In case of vapour formation use respirator. Ensure adequate ventilation. Use personal protective clothing. Get unprotected persons to safety. Keep away from heat and sources of ignition. Avoid contact with the skin and the eyes. Do not inhale vapour/aerosol.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/ground water. Risk of explosion.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Shovel into suitable container for disposal. Clean contaminated surface thoroughly. Take measures against electrostatic charging.

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Information for disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not keep containers unlocked. Observe the minimum standards in accordance with TRGS 500. Handle in accordance with the general hygienic rules. When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Contaminated work clothing should not be allowed out of the workplace.

Avoid formation of Aerosols.

Advice on protection against fire and explosion

Vapours are heavier than air. In use, may form flammable/explosive vapour-air mixture. Take precautionary measures against static discharges (earthing (grounding) at pouring).

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Provide solvent-resistant and impermeable floor. Provide floor with bunding. Prevent penetration into the ground. Store in the original container.

Advice on storage compatibility

Keep away from food, drink and animal feeding stuffs. Do not store together with oxidizing and self-igniting products.

Do not store with: Medicinal product, Substances which form flammable gases with water, Organic peroxides.

Further information on storage conditions

Use only in well-ventilated areas. Keep containers tightly closed in a cool, well-ventilated place. Protect from heat and direct solar radiation.

7.3. Specific end use(s)

Liquid contact paint

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
1317-65-3	Calcium carbonate, inhalable dust	-	10		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
56-81-5	Glycerol, mist	-	10		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
67-63-0	Propan-2-ol	400	999		TWA (8 h)	WEL
		500	1250		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
1317-65-3	calcium carbonate		
Worker DNEL, long-term	inhalation	systemic	10 mg/m³
Consumer DNEL, long-term	inhalation	systemic	10 mg/m³
Consumer DNEL, acute	dermal	systemic	6,1 mg/kg bw/day
Consumer DNEL, long-term	dermal	systemic	6,1 mg/kg bw/day

PNEC values

CAS No	Substance
Environmental compartment	Value
1317-65-3	calcium carbonate
Micro-organisms in sewage treatment plants (STP)	100 mg/l

8.2. Exposure controls



Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over the use of personal protective equipment. Ensure adequate ventilation. Provide sufficient air exchange and/or exhaust in work rooms. Orientating ethanol concentration measurement with detector tubes; e.g. Compur (549 210 type: 104 SA), Dräger (81 01631 type: alcohol/25a), Auer (5085-818 type: ethanol-100).

Protective and hygiene measures

Do not inhale vapours. Avoid contact with eyes and skin. Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke. Take off immediately all contaminated clothing.

Eye/face protection

Tightly fitting goggles (EN 166).
Eye wash bottle with pure water (EN 15154).

Hand protection

Splash protection: Protective gloves resistant to chemicals made off butyl, minimum coat thickness 0.7 mm, permeation resistance (wear duration) > 240 minutes, i.e. protective glove <Butoject 898> made by www.kcl.de.
This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions. Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Skin protection

Long sleeved clothing (EN 368). Wear fire retardant protective coveralls. Take precautions against electrostatic discharges.

Respiratory protection

In case of vapour / mist formation use respirator. (Full mask, filter A).

Environmental exposure controls

Do not empty into drains. Explosion risk.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Blue
Odour:	Solvent-like
pH-Value:	Not applicable

Changes in the physical state

Melting point:	- 88 °C
Initial boiling point and boiling range:	82 °C
Sublimation point:	Not determined
Softening point:	Not determined
Pour point:	Not determined
Flash point:	12 °C
Sustaining combustion:	No data available

Flammability

Solid:	Not determined
Gas:	Not determined

Explosive properties

The product is considered non-explosive; nevertheless explosive vapour/air mixture can be generated. Heating will cause pressure rise with risk of bursting.

Lower explosion limits:	2 vol. %
Upper explosion limits:	12 vol. %
Ignition temperature:	465 °C

Auto-ignition temperature

Solid:	Not determined
Gas:	Not determined
Decomposition temperature:	Not determined

Oxidizing properties

Not determined

Vapour pressure: (at 20 °C)	43 hPa
Vapour pressure:	Not determined
Density (at 20 °C):	0,78 g/cm³
Bulk density:	Not determined
Water solubility:	Miscible

Solubility in other solvents

Not determined

Partition coefficient:	0,05
Viscosity / dynamic: (at 20 °C)	0,32 mPa·s
Viscosity / kinematic:	Not determined
Flow time:	Not determined
Vapour density:	Not determined
Evaporation rate:	Not determined
Solvent separation test:	Not determined
Solvent content:	Not determined

9.2. Other information

Solid content:	Not determined

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed. Heating will cause pressure rise with risk of bursting.
In use, may form flammable/explosive vapour-air mixture.Uncleaned empty vessels may contain product gases which can form explosive mixtures with air.

10.2. Chemical stability

Chemically stable.

10.3. Possibility of hazardous reactions

Heating can release vapours which can be ignited.

10.4. Conditions to avoid

Vapour/air mixtures are explosive at intensive warming. Heating can release vapours which can be ignited.
Avoid temperatures above 12 °C. In use formation of flammable/explosive vapour-air mixtures possible.

Keep from freezing. Protect against direct sun radiation.

10.5. Incompatible materials

Oxidizing agents (strong)., Strong acids and strong bases.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol				
	oral	LD50 5050 mg/kg	Rat		
	dermal	LD50 12800 mg/kg	Rabbit		

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause drowsiness or dizziness. (propan-2-ol; isopropyl alcohol; isopropanol)

STOT-repeated exposure

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

Aspiration hazard

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

Further information

Inhalation of vapours in high concentration can cause narcotic effects . Inhalation causes headache/nausea.

Prolonged skin contact may cause skin irritation and/or dermatitis.

SECTION 12: Ecological information

12.1. Toxicity

Not determined

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] | [d]	Species	Source	Method
67-63-0	propan-2-ol; isopropyl alcohol; isopropanol					
	Acute fish toxicity	LC50 > 1000 mg/l	96 h			
	Acute crustacea toxicity	EC50 > 1000 mg/l	48 h			

12.2. Persistence and degradability

CSB: 2,32gO2/g (propan-2-ol; isopropyl alcohol; isopropanol)

12.3. Bioaccumulative potential

Not determined

12.4. Mobility in soil

Not determined

12.5. Results of PBT and vPvB assessment

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

12.6. Other adverse effects

Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

This material and its container must be disposed of as hazardous waste. If recycling is not practicable, dispose of in compliance with local regulations. The waste code number must be agreed with the disposer / manufacturer.

Waste disposal number of waste from residues/unused products

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.
Contaminated packagings are to be treated like the product itself.
Recommended cleaning agent: water with detergents.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	UN 1219
14.2. UN proper shipping name:	ISOPROPANOL (ISOPROPYL ALCOHOL)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3

Classification code:	F1
Special Provisions:	601
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

14.1. UN number:	UN 1219
14.2. UN proper shipping name:	ISOPROPANOL (ISOPROPYL ALCOHOL)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II

Hazard label: 3

Classification code: F1
Special Provisions: 601
Limited quantity: 1 L
Excepted quantity: E2

Marine transport (IMDG)

14.1. UN number: UN 1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3

Special Provisions: -
Limited quantity: 1 L
Excepted quantity: E2
EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1219
14.2. UN proper shipping name: ISOPROPANOL (ISOPROPYL ALCOHOL)
14.3. Transport hazard class(es): 3
14.4. Packing group: II
Hazard label: 3

Special Provisions: A180
Limited quantity Passenger: 1 L
Passenger LQ: Y341
Excepted quantity: E2
IATA-packing instructions - Passenger: 353
IATA-max. quantity - Passenger: 5 L
IATA-packing instructions - Cargo: 364
IATA-max. quantity - Cargo: 60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

The transport takes place only in approved and appropriate packaging.

SECTION 15: Regulatory information

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

EU regulatory information

2004/42/EC (VOC):	100 %
Information according to 2012/18/EU (SEVESO III):	P5c FLAMMABLE LIQUIDS

National regulatory information

Employment restrictions:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Water contaminating class (D):	1 - slightly water contaminating

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes

Update 2018

Abbreviations and acronyms

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route
(Agreement concerning the international carriage of Dangerous goods by Road)
IMDG-Code: International Maritime Code for Dangerous Goods
ICAO: International Civil Aviation Organisation (IATA: The International Air Transport Association)
GHS: Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS-Nr.: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H336	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.
The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.
The delivery specifications are contained in the corresponding product sheet.
This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.
(n.a. = not applicable; n.d. = not determined)

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)