Asplit® VP 788 Solution

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Revision date: 04/22/2022 Supersedes: 11/23/2018 Version: 1.3
SDS No: 00359-1151

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Asplit® VP 788 Solution
Product code : 592 0080, 592 0081, 592 0082

1.2. Recommended use and restrictions on use

Recommended use : putties

1.3. Supplier

TIP TOP Oberflaechenschutz Elbe GmbH
4 Heuweg
Wittenberg, 6886
Germany
T +49(0)3491/635-50 - F +49(0)3491/635-552
E-mail address of competent person responsible for the SDS: sds@gbk-ingelheim.de

1.4. Emergency telephone number

Emergency number : INTERNATIONAL: +49 (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 4	H227	Combustible liquid
Acute toxicity (oral) Category 3	H301	Toxic if swallowed
Acute toxicity (dermal) Category 4	H312	Harmful in contact with skin
Acute toxicity (inhalation) Category 3	H331	Toxic if inhaled
Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2	H319	Causes serious eye irritation.
Skin sensitization, Category 1	H317	May cause an allergic skin reaction.
Carcinogenicity Category 2	H351	Suspected of causing cancer
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335	May cause respiratory irritation.
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs through prolonged or repeated exposure

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger
Hazard statements (GHS US) : H227 - Combustible liquid
H301+H331 - Toxic if swallowed or if inhaled
H312 - Harmful in contact with skin

		H315 - Causes skin irritation H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation. H335 - May cause respiratory irritation. H351 - Suspected of causing cancer H373 - May cause damage to organs through prolonged or repeated exposure
Precautionary statements (GHS US)	:	P202 - Do not handle until all safety precautions have been read and understood. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 - Do not breathe vapors. P280 - Wear eye protection, face protection, protective gloves, protective clothing. P301+P310 - If swallowed: Immediately call a doctor, a POISON CENTER. P302+P352 - If on skin: Wash with plenty of water. P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 - If exposed or concerned: Get medical advice/attention. P405 - Store locked up

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
furfuryl alcohol	CAS-No.: 98-00-0	~ 45	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373
N-(3-(Trimethylsilyl)propyl)ethylendiamine	CAS-No.: 1760-24-3	~ 0,1	Acute Tox. 4 (Inhalation), H332 Eye Dam. 1, H318 Skin Sens. 1, H317

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	:	Remove immediately contaminated clothing. Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at least 48 hours.

First-aid measures after inhalation	:	Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. In the event of symptoms refer for medical treatment.
First-aid measures after skin contact	:	Wash with water and soap as a precaution. If symptoms persist, call a physician.
First-aid measures after eye contact	:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	:	Rinse out mouth thoroughly with water. Drink plenty of water. Never give anything by mouth to an unconscious person. Call a physician immediately. Do not induce vomiting without medical advice.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms	:	Watch out. Beware, hazard of foam aspiration.
Symptoms/effects	:	May cause damage to organs through prolonged or repeated exposure.
Symptoms/effects after inhalation	:	Fatal if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact	:	Causes skin irritation.
Symptoms/effects after eye contact	:	Causes serious eye irritation.
Symptoms/effects after ingestion	:	Toxic if swallowed.
Chronic symptoms	:	Suspected of causing cancer.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	:	Alcohol resistant foam. Dry powder. Carbon dioxide. Water spray.
Unsuitable extinguishing media	:	high volume water jet.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	:	Carbon monoxide. Carbon dioxide.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting	:	In case of fire, wear suitable respiratory equipment with positive air supply. Protective suit.
Other information	:	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

General measures	:	Ensure adequate air ventilation. Use personal protective clothing. In case of vapor formation use adequate respirator. Evacuate personnel to a safe area.

6.1.1. For non-emergency personnel

Emergency procedures	:	Ventilate spillage area. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Clean contaminated surface thoroughly.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Shovel or sweep up and put in a closed container for disposal.

6.4. Reference to other sections

Information for safe handling look up section 7. Information for personal protective equipment look up section 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep the container tightly closed. Do not breathe vapors. Provide appropriate exhaust ventilation at places of dust forming. Avoid contact with skin, eyes and clothing. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. vapors may form explosive mixture with air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed in a dry, cool and well-ventilated place. Keep out of direct sunlight.
Incompatible materials : oxidizing materials.
Information on mixed storage : Keep away from food, drink and animal feeding stuffs.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Asplit® VP 788 Solution

No additional information available

N-(3-(Trimethylsilyl)propyl)ethylendiamine (1760-24-3)

No additional information available

furfuryl alcohol (98-00-0)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

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. Pls. find examples in the protective gloves database under: http://bestglove.com/site/chemrest/

Type	Material	Permeation	Thickness (mm)	Penetration
Chemically resistant protective gloves	butyl rubber	6 (> 480 minutes)	≥ 0.7	

Chemically resistant protective gloves	Nitrile rubber (NBR)	2 (> 30 minutes)	≥ 0.4	

Eye protection:

Tightly fitting goggles (EN 166). Eyewash bottle with clean water (EN 15154)

Skin and body protection:

Long sleeved protective clothing (DIN EN ISO 6530)

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Device	Filter type	Condition
Respiratory protective device with a gas filter	Type A	

Other information:
Do not inhale vapor. Wash hands before breaks and at the end of workday. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Avoid contact with skin, eyes and clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Color	:	Brown
Odor	:	characteristic
Odor threshold	:	No data available
pH	:	Not determined
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	100 – 200 °C
Flash point	:	80 °C DIN EN ISO 2719
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Not applicable.
Vapor pressure	:	≈ 0.53 hPa @ 20°C , Solvent
Relative vapor density at 20 °C	:	No data available
Relative density	:	No data available
Density	:	1.1 g/cm³ @20°C
Solubility	:	Insoluble. at 20°C.
Log Pow	:	No data available
Auto-ignition temperature	:	390 °C Solvent
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	400 – 800 mPa.s @ 23°C
Explosion limits	:	Lower explosive limit (LEL): 1.8 vol % Upper explosive limit (UEL): 16.3 vol %
Explosive properties	:	Product is not explosive. May form flammable/explosive vapor-air mixture.
Oxidizing properties	:	Non oxidizing material.

9.2. Other information

VOC content	:	0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored normally.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

oxidizing materials.

10.4. Conditions to avoid

Keep out of direct sunlight. To avoid thermal decomposition, do not overheat. vapor/air mixtures are explosive.

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Fire may produce: Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Toxic if swallowed.
Acute toxicity (dermal) : Harmful in contact with skin.
Acute toxicity (inhalation) : Toxic if inhaled.

Asplit® VP 788 Solution	
ATE US (oral)	222.222 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h

N-(3-(Trimethylsilyl)propyl)ethylendiamine (1760-24-3)	
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

furfuryl alcohol (98-00-0)	
ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (dust, mist)	0.5 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.
pH: Not determined

Serious eye damage/irritation : Causes serious eye irritation.
pH: Not determined

Respiratory or skin sensitization	:	May cause an allergic skin reaction.
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Suspected of causing cancer.

furfuryl alcohol (98-00-0)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity	:	Not classified
STOT-single exposure	:	May cause respiratory irritation.

furfuryl alcohol (98-00-0)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure	:	May cause damage to organs through prolonged or repeated exposure.

furfuryl alcohol (98-00-0)	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard	:	Not classified
Viscosity, kinematic	:	No data available
Potential Adverse human health effects and symptoms	:	Watch out. Beware, hazard of foam aspiration.
Symptoms/effects	:	May cause damage to organs through prolonged or repeated exposure.
Symptoms/effects after inhalation	:	Fatal if inhaled. May cause respiratory irritation.
Symptoms/effects after skin contact	:	Causes skin irritation.
Symptoms/effects after eye contact	:	Causes serious eye irritation.
Symptoms/effects after ingestion	:	Toxic if swallowed.
Chronic symptoms	:	Suspected of causing cancer.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

Asplit® VP 788 Solution	
Persistence and degradability	No data available.

12.3. Bioaccumulative potential

Asplit® VP 788 Solution	
Bioaccumulative potential	No data available.

12.4. Mobility in soil

Asplit® VP 788 Solution	
Ecology - soil	No data available.

12.5. Other adverse effects

Other adverse effects	:	significant hazardous to water.
Other information	:	Do not flush into surface water or sewer system.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Must follow special treatment according to local regulation. Where possible recycling is preferred to disposal.

Product/Packaging disposal recommendations : Contaminated packagings are to be treated like the product itself. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse. Packaging that cannot be cleaned should be disposed of like the product.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

DOT	TDG	IMDG	IATA
14.1. UN number			
2810	UN2810	2810	2810
14.2. Proper Shipping Name			
Toxic, liquids, organic, n.o.s. (Furfuryl alcohol)	TOXIC LIQUID, ORGANIC, N.O.S. (Furfuryl alcohol)	TOXIC LIQUID, ORGANIC, N.O.S. (Furfuryl alcohol)	Toxic liquid, organic, n.o.s. (Furfuryl alcohol)
14.3. Transport hazard class(es)			
6.1	6.1	6.1	6.1
14.4. Packing group			
III	III	III	III
14.5. Environmental hazards			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN2810

DOT Special Provisions (49 CFR 172.102)	:	IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	:	153
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	203
DOT Packaging Bulk (49 CFR 173.xxx)	:	241
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	220 L
DOT Vessel Stowage Location	:	A - The material may be stowed ‘‘on deck’’ or ‘‘under deck’’ on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other	:	40 - Stow ‘‘clear of living quarters’’

TDG

UN-No. (TDG)	:	UN2810
TDG Special Provisions	:	16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A) of Part 3 (Documentation). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4 (Dangerous Goods Safety Marks). (2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name: (a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S; (b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S; (c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S; (d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or (e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. (3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment: (a) UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or (b) UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS.
Explosive Limit and Limited Quantity Index	:	5 L
Excepted quantities (TDG)	:	E1
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	:	60 L
Emergency Response Guide (ERG) Number	:	153

IMDG

Transport regulations (IMDG)	:	Transport in accordance with section 2.3.2.5 of the IMDG (viscous substance) may be applied
Special provision (IMDG)	:	223, 274
Limited quantities (IMDG)	:	5 L
Excepted quantities (IMDG)	:	E1
Packing instructions (IMDG)	:	P001, LP01

IBC packing instructions (IMDG)	:	IBC03
Tank instructions (IMDG)	:	T7
Tank special provisions (IMDG)	:	TP1, TP28
EmS-No. (Fire)	:	F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage)	:	S-A - SPILLAGE SCHEDULE Alfa - TOXIC SUBSTANCES
Stowage category (IMDG)	:	A

IATA

PCA Excepted quantities (IATA)	:	E1
PCA Limited quantities (IATA)	:	Y642
PCA limited quantity max net quantity (IATA)	:	2L
PCA packing instructions (IATA)	:	655
PCA max net quantity (IATA)	:	60L
CAO packing instructions (IATA)	:	663
CAO max net quantity (IATA)	:	220L
Special provision (IATA)	:	A3, A4, A137
ERG code (IATA)	:	6L

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

N-(3-(Trimethylsilyl)propyl)ethylendiamine (1760-24-3)

Listed on the Canadian DSL (Domestic Substances List)

furfuryl alcohol (98-00-0)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

furfuryl alcohol (98-00-0)

Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

WARNING: This product can expose you to furfuryl alcohol, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
furfuryl alcohol(98-00-0)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 04/22/2022

Other information : Data of sections 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.

Full text of H-phrases	
H227	Combustible liquid
H301	Toxic if swallowed
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage
H319	Causes serious eye irritation.
H331	Toxic if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation.
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure

Abbreviations and acronyms	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

Abbreviations and acronyms	
DOT	Department of Transport
TDG	Transportation of Dangerous Goods
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
GHS	Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
IARC	International Agency for Research on Cancer
vPvB	Very Persistent and Very Bioaccumulative
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
CAS	CAS (Chemical Abstracts Service) number
IBC-Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ATE	Acute Toxicity Estimate
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
BCF	Bioconcentration factor
MARPOL 73/78	MARPOL 73/78: International Convention for the Prevention of Pollution From Ships
ADG	Transport of Australian Dangerous Goods

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should therefore not be construed as guaranteeing any specific property of the product.