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

1.1. Product identifier

ASPLIT LF HARDENER

Art.-No.
592 0800

REACH Registration Number: 01-2119958967-12-0000
CAS No: 88-95-9
EC No: 201-869-0

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

Use of the substance/mixture

Hardener

1.3. Details of the supplier of the safety data sheet

TIP TOP Oberflaechenschutz Elbe GmbH
Heuweg 4
D-06886 Wittenberg
Telephone: +49(0)3491/635-50
Telefax: +49(0)3491/635-552
Responsible for the safety data sheet: sds@gbk-ingelheim.de

1.4. Emergency telephone number:

INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)
England and Wales: NHS Direct - 0845 4647; Scotland: NHS 24 - 08454 24 24 24

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: C - Corrosive, Xn - Harmful, Xi - Irritant
R phrases:
Reacts violently with water.
Harmful in contact with skin.
Causes burns.
Irritating to respiratory system.
May cause sensitisation by inhalation and skin contact.

GHS classification

Hazard categories:
Acute toxicity: Acute Tox. 4
Skin corrosion/irritation: Skin Corr. 1B
Specific target organ toxicity - single exposure: STOT SE 3
Respiratory/skin sensitization: Resp. Sens. 1
Respiratory/skin sensitization: Skin Sens. 1
Hazard Statements:
Harmful in contact with skin.
Causes severe skin burns and eye damage.
May cause respiratory irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled .
May cause an allergic skin reaction.

2.2. Label elements

Pictograms: GHS05-GHS07-GHS08

Signal word: Danger

Hazardous components which must be listed on the label

Phthaloyl dichloride

Hazard statements

H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

Precautionary statements

P260	Do not breathe gas/vapour/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
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.
P310	Immediately call a POISON CENTER/doctor.

Special labelling of certain mixtures

EUH014	Reacts violently with water.

2.3. Other hazards

Not known.

SECTION 3: Composition/information on ingredients

3.1. Substances

Sum formula: C8 H4 Cl2 O2
Molecular weight: 203,01

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
201-869-0	Phthaloyl dichloride	> 99 %
88-95-9	C - Corrosive, Xn - Harmful, Xi - Irritant R14-21-34-37-42/43	
	Acute Tox. 4, Skin Corr. 1B, STOT SE 3, Resp. Sens. 1, Skin Sens. 1; H312 H314 H335 H334 H317	
01-2119958967-12-0000		

Full text of R and H phrases: see Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.
Call a physician immediately.

After inhalation

Move to fresh air in case of accidental inhalation of vapours.
If patient is not breathing, apply artificial respiration.
Call a physician immediately.

After contact with skin

In case of contact with skin wash off immediately with plenty of water.
Seek medical treatment immediately.

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.

Induce vomiting only upon the advice of a physician.

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

Harmful in contact with skin.
Causes severe skin burns and eye damage.
May cause respiratory irritation.
May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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

Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

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

Extinguishing media which must not be used for safety reasons

Full water jet.

5.2. Special hazards arising from the substance or mixture

Fire may produce:
Carbon monoxide and carbon dioxide.
Hydrochloric acid
Chlorine compounds.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

Additional information

Cool containers at risk with water spray jet.
Collect contaminated firefighting water separately, must not be discharged into the drains.
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.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/ground water.
Clean contaminated surface thoroughly.

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.
Do not use metal containers.

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

Care for thoroughly room ventilation, if necessary suck off at workplace.
Keep container tightly closed.
Handle and open container with care.

Advice on protection against fire and explosion

No special protective measures against fire required.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a dry, cool and well-ventilated place.
Protect from atmospheric moisture and water.

Protect against direct sun radiation.
Do not use metal containers.
Recommended storage temperature: > 10°C

Advice on storage compatibility
Incompatible with:
Bases
Oxidizing agents
Alcohols

Further information on storage conditions
Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)
Hardener

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Occupational exposure controls
Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures
Do not inhale gases/vapours/aerosols.
Wash hands before breaks and immediately after handling the product.
When using, do not eat, drink or smoke.
Avoid contact with skin, eyes and clothing.
Remove and wash contaminated clothes before re-use.

Respiratory protection
In case of insufficient ventilation wear suitable respiratory equipment (gas filter type E) (EN 141).

Hand protection
Chemical protective gloves made of nitrile, nitrile/cotton, butyl or neoprene, with a minimum thickness of 0.7 mm, permeation time of approx. 480 minutes.
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/

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

Skin protection
Acid-resistant protective clothing, rubber boots.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Colourless
Odour:	Pungent

		Test method
pH-Value:	1 - 2	(200 g/l H2O)

Changes in the physical state

Melting point:	15 - 16 °C	
Initial boiling point and boiling range:	281,1 °C	
Flash point:	135 °C	DIN EN ISO 2719
Lower explosion limits:	n.d.	
Upper explosion limits:		
Ignition temperature:	370 °C	DIN 51794

Vapour pressure: (at 20 °C)	< 10 hPa	
Density (at 20 °C):	1,4089 g/cm³	
Water solubility:	Reacts with water.	
Viscosity / dynamic: (at 20 °C)	10,4 mPa·s	
Flow time: (at 23 °C)	< 12 s	4 DIN EN ISO 2431

9.2. Other information

Refractiive index: 1,5684 (20°C)

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored and applied as directed.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactions with oxidizing agents.
Reactions with alcohols.
Reactions with alkalies.
Reacts violently with water.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

oxidizing agents
Bases.
Alcohols

10.6. Hazardous decomposition products

Carbon monoxide and carbon dioxide.
Hydrochloric acid

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

No toxicological data available.
Harmful in contact with skin.

Irritation and corrosivity

Causes severe skin burns and eye damage.

Sensitising effects

May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled .

Severe effects after repeated or prolonged exposure

STOT - Single exposure: Category 3 [May cause respiratory irritation.]
STOT - Repeated exposure: Not classified.
Aspiration hazard: Not classified.

Carcinogenic/mutagenic/toxic effects for reproduction

Carcinogenicity: Not classified.
Mutagenicity: Not classified.
Teratogenicity: Not classified.

Additional information on tests

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

Empirical data on effects on humans

Ingestion can cause gastrointestinal irritation, headache, nausea, vomiting, vertigo, intoxication, unconsciousness and death.
Inhalation of high vapour concentration may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

SECTION 12: Ecological information

12.1. Toxicity
Ecological data are not available.

12.2. Persistence and degradability
No data available.

12.3. Bioaccumulative potential
No data available.

12.4. Mobility in soil
No data available.

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
Severe hazard to waters

Further information
Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal
Where possible recycling is preferred to disposal.
Can be incinerated, when in compliance with local regulations.

Waste disposal number of waste from residues/unused products

080409	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other dangerous substances Classified as 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.
Packaging that cannot be cleaned should be disposed of like the product.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:	3265
14.2. UN proper shipping name:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Phthaloyl dichloride)
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8

Classification code:	C3
Limited quantity:	1 L / 30 kg
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E

Inland waterways transport (ADN)

14.1. UN number:	3265
14.2. UN proper shipping name:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Phthaloyl dichloride)
14.3. Transport hazard class(es):	8
14.4. Packing group:	II

Hazard label: 8

Classification code: C3
Limited quantity: 1 L / 30 kg

Marine transport (IMDG)

14.1. UN number: 3265
14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (phthaloyl dichloride)
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8

Marine pollutant: No
Limited quantity: 1 L / 30 kg
EmS: F-A, S-B

Air transport (ICAO)

UN/ID number: 3265
14.2. UN proper shipping name: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (phthaloyl dichloride)
14.3. Transport hazard class(es): 8
14.4. Packing group: II
Hazard label: 8

Limited quantity Passenger: Y840 / 0.5 L
IATA-packing instructions - Passenger: 851
IATA-max. quantity - Passenger: 1 L
IATA-packing instructions - Cargo: 855
IATA-max. quantity - Cargo: 30 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 MARPOL73/78 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
1999/13/EC (VOC): 0 %

National regulatory information
Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.

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

SECTION 16: Other information

Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
IMDG = International Maritime Code for Dangerous Goods
IATA/ICAO = International Air Transport Association / International Civil Aviation Organization
MARPOL = International Convention for the Prevention of Pollution from Ships
IBC = Code International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
REACH = Registration, Evaluation, Authorization and Restriction of Chemicals
CAS = Chemical Abstract Service
EN = European norm
ISO = International Organization for Standardization
VOC = Volatile organic compound
STOT SE = Specific target organ toxicity single exposure
STOT RE = Specific target organ toxicity repeated exposure
PBT = Persistent Bioaccumulative and Toxic
vPvB = Very Persistent and very Bio-accumulative
bw = body weight
LD = Lethal dose
LC = Lethal concentration
EC = Effect concentration
IC = Median immobilisation concentration or median inhibitory concentration

Full text of R phrases referred to under Sections 2 and 3

14	Reacts violently with water.
21	Harmful in contact with skin.
34	Causes burns.
37	Irritating to respiratory system.
42/43	May cause sensitisation by inhalation and skin contact.

Full text of H statements referred to under Sections 2 and 3

H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled .
H335	May cause respiratory irritation.

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.