



SAFETY DATA SHEET

KEM BS

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

1.1. Product identifier

Product name KEM BS

Product number 13039

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

Identified uses Cosmetics Preservative

1.3. Details of the supplier of the safety data sheet

Supplier Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
BD3 7AY
+44 1274 267300
+44 1274 267306
SDS.EMEA@univarsolutions.com

1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)

Sds No. 13039

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Eye Irrit. 2 - H319

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms



Signal word Warning

Hazard statements H319 Causes serious eye irritation.

Precautionary statements P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
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.

2.3. Other hazards

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This substance is not classified as PBT or vPvB according to current EU criteria. (@ >= 0.1%)

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SODIUM BENZOATE	>= 30 - < 50%
CAS number: 532-32-1	EC number: 208-534-8
	REACH registration number: 01-2119460683-35-XXXX

Classification

Eye Irrit. 2 - H319

POTASSIUM (E,E)-HEXA-2,4-DIENOATE	>= 10 - < 30%
CAS number: 24634-61-5	EC number: 246-376-1

Classification

Eye Irrit. 2 - H319

The full text for all hazard statements is displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting unless under the direction of medical personnel. Get medical attention.
Skin contact	Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention.

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

Eye contact	Causes serious eye irritation.
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4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Sodium.
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5.3. Advice for firefighters

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Protective actions during firefighting Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Avoid the spillage or runoff entering drains, sewers or watercourses. Contain and collect extinguishing water.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Avoid discharge into water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with inert, damp, non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid inhalation of vapours and contact with skin and eyes. Provide adequate ventilation.

Advice on general occupational hygiene Provide eyewash station and safety shower. Do not eat, drink or smoke when using this product. Wash after use and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Avoid exposure to high temperatures or direct sunlight. Avoid contact with acids. Avoid contact with oxidising agents.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Ingredient comments No exposure limits known for ingredient(s).

SODIUM BENZOATE (CAS: 532-32-1)

Ingredient comments Observe any occupational exposure limits for the product or ingredients.

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DNEL

Workers - Inhalation; Long term local effects: 0.1 mg/m³
 Workers - Inhalation; Long term systemic effects: 3 mg/m³
 Workers - Dermal; Long term systemic effects: 62.5 mg/kg/day
 General population - Inhalation; Long term local effects: 0.06 mg/m³
 General population - Inhalation; Long term systemic effects: 1.5 mg/m³
 General population - Dermal; Long term systemic effects: 31.25 mg/kg/day
 General population - Oral; Long term systemic effects: 16.6 mg/kg/day

PNEC

- Fresh water; 0.13 mg/l
 - Sediment (Freshwater); 1.76 mg/kg
 - marine water; 0.013 mg/l
 - Sediment (Marinewater); 0.176 mg/kg
 - Intermittent release; 0.305 mg/l
 - Soil; 0.276 mg/kg
 - STP; 10 mg/l

POTASSIUM (E,E)-HEXA-2,4-DIENOATE (CAS: 24634-61-5)

DNEL

Workers - Dermal; Long term systemic effects: 40 mg/kg/day
 Workers - Inhalation; Long term systemic effects: 17.63 mg/m³
 General population - Oral; Long term systemic effects: 2 mg/kg/day
 General population - Dermal; Long term systemic effects: 20 mg/kg/day
 General population - Inhalation; Long term systemic effects: 52.17 mg/m³
 General population - Dermal; Long term local effects: 0.17 mg/cm²
 General population - Inhalation; Long term local effects: 26.08 mg/m³

PNEC

STP; 10 mg/l
 Soil; 1.67 mg/kg
 Intermittent release; 4.8 mg/l
 Fresh water; 0.49 mg/l
 marine water; 0.048 mg/l
 Sediment (Freshwater); 1.73 mg/kg
 Sediment (Marinewater); 0.173 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Provide eyewash station and safety shower.

Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacture, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374.

Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

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Hygiene measures	Do not eat, drink or smoke when using this product. Wash after use and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. EN 136/140/141/145/143/149 Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Yellowish.
Odour	Mild.
Odour threshold	No information available.
pH	pH (concentrated solution): 8.5
Melting point	No information available.
Pour Point	No information available.
Freezing Point	No information available.
Initial boiling point and range	No information available.
Flash point	> 60°C
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Other flammability	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	No information available.
Bulk density	No information available.
Solubility(ies)	Miscible with water.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	No information available.
Explosive under the influence of a flame	No information available.
Oxidising properties	No information available.

9.2. Other information

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Other information Not determined.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity The following materials may react with the product: Acids. Oxidising agents.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None known.

10.4. Conditions to avoid

Conditions to avoid Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid Oxidising agents. Acids.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of the following substances: Sodium.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Based on available data the classification criteria are not met.

Skin corrosion/irritation

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

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

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

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

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Inhalation	Gas or vapour in high concentrations may irritate the respiratory system.
Ingestion	May cause discomfort if swallowed.
Skin contact	Skin irritation should not occur when used as recommended.
Eye contact	Causes serious eye irritation.

Toxicological information on ingredients.

SODIUM BENZOATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 2,000.0
mg/kg)

Species Rat

Notes (oral LD₅₀) LD₅₀ > 2000 mg/kg, Oral, Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,000.0
mg/kg)

Species Rat

Notes (dermal LD₅₀) LD₅₀ > 2000 mg/kg, Dermal, Rat

Acute toxicity - inhalation

Acute toxicity inhalation 12.2
(LC₅₀ dust/mist mg/l)

Species Rat

Notes (inhalation LC₅₀) LC₅₀ 12.2 mg/l, Inhalation, Dust/Mist, Rat

ATE inhalation 12.2
(dusts/mists mg/l)

Skin corrosion/irritation

Skin corrosion/irritation No specific test data are available.

Serious eye damage/irritation

Serious eye 1
damage/irritation Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation No specific test data are available.

Skin sensitisation

Skin sensitisation No specific test data are available.

Germ cell mutagenicity

Genotoxicity - in vitro No specific test data are available.

Carcinogenicity

Carcinogenicity No specific test data are available.

Reproductive toxicity

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Reproductive toxicity - fertility No specific test data are available.

Specific target organ toxicity - single exposure

STOT - single exposure No specific test data are available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No specific test data are available.

Aspiration hazard

Aspiration hazard Not available.

Inhalation Dust in high concentrations may irritate the respiratory system.

Ingestion No harmful effects expected from quantities likely to be ingested by accident.

Skin contact Powder may irritate skin.

Eye contact Causes serious eye irritation.

POTASSIUM (E,E)-HEXA-2,4-DIENOATE

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ 7360 - 12500 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >2000 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No information available.

Skin corrosion/irritation

Animal data Not irritating. Rabbit

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.
Irritating to eyes. Rabbit

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Guinea pig maximization test (GPMT) - Guinea pig: Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro This substance has no evidence of mutagenic properties.

Carcinogenicity

Carcinogenicity There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - development This substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - single exposure

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STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard No information available.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system.

Ingestion May cause discomfort if swallowed.

Skin contact Skin irritation should not occur when used as recommended.

Eye contact Causes serious eye irritation.

SECTION 12: Ecological information

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

Ecological information on ingredients.

SODIUM BENZOATE

Ecotoxicity The product components are not classified as environmentally hazardous. However, large or frequent spills may have hazardous effects on the environment.

POTASSIUM (E,E)-HEXA-2,4-DIENOATE

Ecotoxicity The product is not expected to be hazardous to the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity

Toxicity No information available.

Ecological information on ingredients.

SODIUM BENZOATE

Toxicity Not considered toxic to fish.

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: > 100 mg/l,
OECD 203
LC₅₀, 96 hour: 484 mg/l, Pimephales promelas (Fat-head Minnow)
NOEC, 144 hour: 10 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic invertebrates EC₅₀, 96 hours: > 100 mg/l, Daphnia magna
OECD 202

Acute toxicity - aquatic plants EC₅₀, 72 hours: > 100 mg/l, Algae
OECD 201
EC₅₀, 72 hour: > 30.5 mg/l, Pseudokirchneriella subcapitata
NOEC, 72 hour: 0.09 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms NOEC, 168 hour: > 100 mg/l,
Achromobacter sp.

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POTASSIUM (E,E)-HEXA-2,4-DIENOATE

Toxicity	Not considered toxic to fish.
<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	LC ₅₀ , 96 hours: 1000 mg/l, Brachydanio rerio (Zebra Fish) LC ₁₀₀ , 96 hours: > 1000 mg/kg, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 982 mg/l, Daphnia magna EC ₁₀₀ , 48 hours: > 1000 mg/kg, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: > 85 mg/l, Desmodesmus subspicatus
Acute toxicity - microorganisms	EC ₅₀ , 3 hours: > 100 mg/l, Activated sludge

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Ecological information on ingredients.

SODIUM BENZOATE

Persistence and degradability	The product is readily biodegradable.
Biodegradation	- Degradation 94%: 28 day

POTASSIUM (E,E)-HEXA-2,4-DIENOATE

Persistence and degradability	The product is readily biodegradable.
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12.3. Bioaccumulative potential

Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient	No information available.

Ecological information on ingredients.

SODIUM BENZOATE

Bioaccumulative potential	No data available on bioaccumulation.
Partition coefficient	log Kow: -2.27

POTASSIUM (E,E)-HEXA-2,4-DIENOATE

Bioaccumulative potential	Bioaccumulation is unlikely.
Partition coefficient	log Pow: -1.72

12.4. Mobility in soil

Mobility	Miscible with water.
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Ecological information on ingredients.

SODIUM BENZOATE

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Surface tension 72.9 mN/m @ 20°C OECD 115

POTASSIUM (E,E)-HEXA-2,4-DIENOATE

Mobility No information available.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria. (@ >= 0.1%)

Ecological information on ingredients.**SODIUM BENZOATE**

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

POTASSIUM (E,E)-HEXA-2,4-DIENOATE

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects Not determined.

Ecological information on ingredients.**SODIUM BENZOATE**

Other adverse effects Not available.

POTASSIUM (E,E)-HEXA-2,4-DIENOATE

Other adverse effects No information available.

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

General information Waste is classified as hazardous waste.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

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Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

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

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Commission Regulation (EU) No 2015/830 of 28 May 2015.

Restrictions (Annex XVII Regulation 1907/2006)

This product is/contains a substance that is included in REGULATION (EC) No 1907/2006 (REACH) ANNEX XVII - RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES. Entry number: 3

15.2. Chemical safety assessment

Not applicable.

SECTION 16: Other information

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Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
 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.
 CAS: Chemical Abstracts Service.
 DNEL: Derived No Effect Level.
 IATA: International Air Transport Association.
 IMDG: International Maritime Dangerous Goods.
 Kow: Octanol-water partition coefficient.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 PBT: Persistent, Bioaccumulative and Toxic substance.
 PNEC: Predicted No Effect Concentration.
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 vPvB: Very Persistent and Very Bioaccumulative.
 IARC: International Agency for Research on Cancer.
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
 cATpE: Converted Acute Toxicity Point Estimate.
 BCF: Bioconcentration Factor.
 BOD: Biochemical Oxygen Demand.
 EC₅₀: 50% of maximal Effective Concentration.
 LOAEC: Lowest Observed Adverse Effect Concentration.
 LOAEL: Lowest Observed Adverse Effect Level.
 NOAEC: No Observed Adverse Effect Concentration.
 NOAEL: No Observed Adverse Effect Level.
 NOEC: No Observed Effect Concentration.
 LOEC: Lowest Observed Effect Concentration.
 DMEL: Derived Minimal Effect Level.
 EL50: Exposure Limit 50
 hPa: Hectopascal
 LL50: Lethal Loading fifty
 OECD: Organisation for Economic Co-operation and Development
 POW: Octanol-water partition coefficient
 SCBA: self-contained breathing apparatus
 STP: Sewage Treatment Plant
 VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
 Aquatic Acute = Hazardous to the aquatic environment (acute)
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Key literature references and sources for data

Supplier's information.

Classification procedures according to Regulation (EC) 1272/2008

Eye Irrit. 2 - H319: Calculation method.

Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

06/01/2022

KEM BS

Version number	3.000
Supersedes date	25/07/2016
SDS number	13039
SDS status	Approved.
Hazard statements in full	H319 Causes serious eye irritation.
Signature	J Spenceley

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.