

# FICHA DE DATOS DE SEGURIDAD

(de acuerdo con el Reglamento (UE) 2015/830)

## FILNET sólido



Versión: 1

Fecha de revisión: 11/01/2017

Página 1 de 9

Fecha de impresión: 11/01/2017

### SECCIÓN 1: IDENTIFICACIÓN DE LA SUSTANCIA Y DE LA SOCIEDAD O LA EMPRESA.

#### 1.1 Identificador del producto.

Nombre del producto: FILNET sólido  
Nombre químico: ácido sulfámico  
N. Índice: 016-026-00-0  
N. CAS: 5329-14-6  
N. CE: 226-218-8  
N. registro: 01-2119488633-28-XXXX

#### 1.2 Usos pertinentes identificados de la sustancia y usos desaconsejados.

Desincrustante

#### Usos desaconsejados:

Usos distintos a los aconsejados.

#### 1.3 Datos del proveedor de la ficha de datos de seguridad.

Empresa: **FLUIDRA COMMERCIAL, S.A.U.**  
Dirección: Avda. Francesc Macià, 60, 20ª planta  
Población: 08208 Sabadell  
Provincia: (Barcelona) Spain  
Teléfono: Tel: +34 93 724 39 00  
Fax: Fax: +34 93 724 29 93  
E-mail: fds@inquide.com  
Web: www.astralpool.com

#### 1.4 Teléfono de emergencia:

Servicio de Información Toxicológica (Instituto Nacional de Toxicología y Ciencias Forenses) Teléfono: +34 91 5620420.  
Información en español (24h/365 días). Únicamente con la finalidad de proporcionar respuesta sanitaria en caso de urgencia.

### SECCIÓN 2: IDENTIFICACIÓN DE LOS PELIGROS.

#### 2.1 Clasificación de la sustancia.

Según el Reglamento (EU) No 1272/2008:

Aquatic Chronic 3 : Nocivo para los organismos acuáticos, con efectos nocivos duraderos.  
Eye Irrit. 2 : Provoca irritación ocular grave.  
Skin Irrit. 2 : Provoca irritación cutánea.

#### 2.2 Elementos de la etiqueta.

##### Etiquetado conforme al Reglamento (EU) No 1272/2008:

Pictogramas:



Palabra de advertencia:

#### **Atención**

Frases H:

H315 Provoca irritación cutánea.  
H319 Provoca irritación ocular grave.  
H412 Nocivo para los organismos acuáticos, con efectos nocivos duraderos.

Frases P:

P101 Si se necesita consejo médico, tener a mano el envase o la etiqueta.  
P102 Mantener fuera del alcance de los niños.  
P103 Leer la etiqueta antes del uso.

-Continúa en la página siguiente.-

# FICHA DE DATOS DE SEGURIDAD

(de acuerdo con el Reglamento (UE) 2015/830)



## FILNET sólido

Versión: 1

Fecha de revisión: 11/01/2017

Página 2 de 9

Fecha de impresión: 11/01/2017

P273	Evitar su liberación al medio ambiente.
P280	Llevar guantes/prendas/gafas/máscara de protección.
P321	Se necesita un tratamiento específico (ver ... en esta etiqueta).
P501	Eliminar el contenido y/o su recipiente de acuerdo con la normativa sobre residuos peligrosos

Contiene:

ácido sulfámico

### 2.3 Otros peligros.

En condiciones de uso normal y en su forma original, el producto no tiene ningún otro efecto negativo para la salud y el medio ambiente.

## SECCIÓN 3: COMPOSICIÓN/INFORMACIÓN SOBRE LOS COMPONENTES.

### 3.1 Sustancias.

Nombre químico:	ácido sulfámico
N. Índice:	016-026-00-0
N. CAS:	5329-14-6
N. CE:	226-218-8
N. registro:	01-2119488633-28-XXXX

### 3.2 Mezclas.

No Aplicable.

## SECCIÓN 4: PRIMEROS AUXILIOS.

**PREPARADO IRRITANTE.** Su contacto repetido o prolongado con la piel o las mucosas, puede causar síntomas irritantes, tales como enrojecimiento, ampollas o dermatitis. Algunos de los síntomas pueden no ser inmediatos. Pueden producirse reacciones alérgicas en la piel.

La información de la composición actualizada del producto ha sido remitida al Servicio de información Toxicológica (Instituto Nacional de Toxicología y Ciencias Forenses). En caso de intoxicación llamar al Servicio de Información Toxicológica:

Tfno (24 horas) 91 562 04 20

### 4.1 Descripción de los primeros auxilios.

En los casos de duda, o cuando persistan los síntomas de malestar, solicitar atención médica. No administrar nunca nada por vía oral a personas que se encuentre inconscientes.

### Inhalación.

Situar al accidentado al aire libre, mantenerle caliente y en reposo, si la respiración es irregular o se detiene, practicar respiración artificial. No administrar nada por la boca. Si está inconsciente, ponerle en una posición adecuada y buscar ayuda médica.

### Contacto con los ojos.

En caso de llevar lentes de contacto, quitarlas. Lavar abundantemente los ojos con agua limpia y fresca durante, por lo menos, 10 minutos, tirando hacia arriba de los párpados y buscar asistencia médica.

### Contacto con la piel.

Quitar la ropa contaminada. Lavar la piel vigorosamente con agua y jabón o un limpiador de piel adecuado. **NUNCA** utilizar disolventes o diluyentes.

### Ingestión.

Si accidentalmente se ha ingerido, buscar inmediatamente atención médica. Mantenerle en reposo. **NUNCA** provocar el vómito.

### 4.2 Principales síntomas y efectos, agudos y retardados.

Producto Irritante, el contacto repetido o prolongado con la piel o las mucosas puede causar enrojecimiento, ampollas o dermatitis, la inhalación de niebla de pulverización o partículas en suspensión puede causar irritación de las vías respiratorias, algunos de los síntomas pueden no ser inmediatos. Pueden producirse reacciones alérgicas.

### 4.3 Indicación de toda atención médica y de los tratamientos especiales que deban dispensarse inmediatamente.

En los casos de duda, o cuando persistan los síntomas de malestar, solicitar atención médica. No administrar nunca nada por vía oral a personas que se encuentren inconscientes.

## SECCIÓN 5: MEDIDAS DE LUCHA CONTRA INCENDIOS.

-Continúa en la página siguiente.-

# FICHA DE DATOS DE SEGURIDAD

(de acuerdo con el Reglamento (UE) 2015/830)

## FILNET sólido



Versión: 1

Fecha de revisión: 11/01/2017

Página 3 de 9

Fecha de impresión: 11/01/2017

El producto no presenta ningún riesgo particular en caso de incendio.

### 5.1 Medios de extinción.

#### Medios de extinción recomendados.

Polvo extintor o CO<sub>2</sub>. En caso de incendios más graves también espuma resistente al alcohol y agua pulverizada. No usar para la extinción chorro directo de agua.

### 5.2 Peligros específicos derivados de la sustancia.

#### Riesgos especiales.

El fuego puede producir un espeso humo negro. Como consecuencia de la descomposición térmica, pueden formarse productos peligrosos: monóxido de carbono, dióxido de carbono. La exposición a los productos de combustión o descomposición puede ser perjudicial para la salud.

### 5.3 Recomendaciones para el personal de lucha contra incendios.

Refrigerar con agua los tanques, cisternas o recipientes próximos a la fuente de calor o fuego. Tener en cuenta la dirección del viento. Evitar que los productos utilizados en la lucha contra incendio pasen a desagües, alcantarillas o cursos de agua.

#### Equipo de protección contra incendios.

Según la magnitud del incendio, puede ser necesario el uso de trajes de protección contra el calor, equipo respiratorio autónomo, guantes, gafas protectoras o máscaras faciales y botas.

## SECCIÓN 6: MEDIDAS EN CASO DE VERTIDO ACCIDENTAL.

### 6.1 Precauciones personales, equipo de protección y procedimientos de emergencia.

Para control de exposición y medidas de protección individual, ver sección 8.

### 6.2 Precauciones relativas al medio ambiente.

Producto peligroso para el medio ambiente, en caso de producirse grandes vertidos o si el producto contamina lagos, ríos o alcantarillas, informar a las autoridades competentes, según la legislación local. Evitar la contaminación de desagües, aguas superficiales o subterráneas, así como del suelo.

### 6.3 Métodos y material de contención y de limpieza.

La zona contaminada debe limpiarse inmediatamente con un descontaminante adecuado. Echar el descontaminante a los restos y dejarlo durante varios días hasta que no se produzca reacción, en un envase sin cerrar.

### 6.4 Referencia a otras secciones.

Para control de exposición y medidas de protección individual, ver sección 8.

Para la eliminación de los residuos, seguir las recomendaciones de la sección 13.

## SECCIÓN 7: MANIPULACIÓN Y ALMACENAMIENTO.

### 7.1 Precauciones para una manipulación segura.

Para la protección personal, ver sección 8. No emplear nunca presión para vaciar los envases, no son recipientes resistentes a la presión.

En la zona de aplicación debe estar prohibido fumar, comer y beber.

Cumplir con la legislación sobre seguridad e higiene en el trabajo.

Conservar el producto en envases de un material idéntico al original.

### 7.2 Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades.

Almacenar según la legislación local. Observar las indicaciones de la etiqueta. Almacenar los envases entre 5 y 35 °C, en un lugar seco y bien ventilado, lejos de fuentes de calor y de la luz solar directa. Mantener lejos de puntos de ignición. Mantener lejos de agentes oxidantes y de materiales fuertemente ácidos o alcalinos. No fumar. Evitar la entrada a personas no autorizadas. Una vez abiertos los envases, han de volverse a cerrar cuidadosamente y colocarlos verticalmente para evitar derrames.

El producto no se encuentra afectado por la Directiva 2012/18/UE (SEVESO III).

### 7.3 Usos específicos finales.

Ningún uso particular.

## SECCIÓN 8: CONTROLES DE EXPOSICIÓN/PROTECCIÓN INDIVIDUAL.

### 8.1 Parámetros de control.

-Continúa en la página siguiente.-

# FICHA DE DATOS DE SEGURIDAD

(de acuerdo con el Reglamento (UE) 2015/830)

## FILNET sólido

Versión: 1

Fecha de revisión: 11/01/2017



Página 4 de 9

Fecha de impresión: 11/01/2017

El producto NO contiene sustancias con Valores Límite Ambientales de Exposición Profesional. El producto NO contiene sustancias con Valores Límite Biológicos.

Niveles de concentración DNEL/DMEL:

Nombre	DNEL/DMEL	Tipo	Valor
ácido sulfámico N. CAS: 5329-14-6 N. CE: 226-218-8	DNEL (Trabajadores)	Cutánea, Crónico, Efectos sistémicos	10 (mg/kg bw/day)
	DNEL (Consumidores)	Cutánea, Crónico, Efectos sistémicos	5 (mg/kg bw/day)
	DNEL (Consumidores)	Oral, Crónico, Efectos sistémicos	5 (mg/kg bw/day)

DNEL: Derived No Effect Level, (nivel sin efecto obtenido) nivel de exposición a la sustancia por debajo del cual no se prevén efectos adversos.

DMEL: Derived Minimal Effect Level, nivel de exposición que corresponde a un riesgo bajo, que debe considerarse un riesgo mínimo tolerable.

Niveles de concentración PNEC:

Nombre	Detalles	Valor
ácido sulfámico N. CAS: 5329-14-6 N. CE: 226-218-8	aqua (freshwater)	0,048 (mg/L)
	aqua (marine water)	0,0048 (mg/L)
	aqua (intermittent releases)	0,48 (mg/L)
	PNEC STP	2 (mg/L)
	sediment (freshwater)	0,173 (mg/kg sediment dw)
	sediment (marine water)	0,0173 (mg/kg sediment dw)
	soil	0,00638 (mg/kg soil dw)

PNEC: Predicted No Effect Concentration, (concentración prevista sin efecto) concentración de la sustancia por debajo de la cual no se esperan efectos negativos en el comportamiento medioambiental.

### 8.2 Controles de la exposición.

#### Medidas de orden técnico:

Proveer una ventilación adecuada, lo cual puede conseguirse mediante una buena extracción-ventilación local y un buen sistema general de extracción.

<b>Concentración:</b>	<b>100 %</b>
<b>Usos:</b>	<b>Desincrustante</b>
<b>Protección respiratoria:</b>	
Si se cumplen las medidas técnicas recomendadas no es necesario ningún equipo de protección individual.	
<b>Protección de las manos:</b>	
Si el producto se manipula correctamente no es necesario ningún equipo de protección individual.	
<b>Protección de los ojos:</b>	
EPI:	Gafas de protección contra impactos de partículas
Características:	Marcado «CE» Categoría II. Protector de ojos contra polvo y humos.
Normas CEN:	EN 165, EN 166, EN 167, EN 168
Mantenimiento:	La visibilidad a través de los oculares debe ser óptima para lo cual estos elementos se deben limpiar a diario, los protectores deben desinfectarse periódicamente siguiendo las instrucciones del fabricante.
Observaciones:	Indicadores de deterioro pueden ser: coloración amarilla de los oculares, arañazos superficiales en los oculares, rasgaduras, etc.
<b>Protección de la piel:</b>	
EPI:	Calzado de trabajo
Características:	Marcado «CE» Categoría II.
Normas CEN:	EN ISO 13287, EN 20347
Mantenimiento:	Estos artículos se adaptan a la forma del pie del primer usuario. Por este motivo, al igual que por cuestiones de higiene, debe evitarse su reutilización por otra persona.



-Continúa en la página siguiente.-

# FICHA DE DATOS DE SEGURIDAD

(de acuerdo con el Reglamento (UE) 2015/830)



## FILNET sólido

Versión: 1

Fecha de revisión: 11/01/2017

Página 5 de 9

Fecha de impresión: 11/01/2017

Observaciones:	El calzado de trabajo para uso profesional es el que incorpora elementos de protección destinados a proteger al usuario de las lesiones que pudieran provocar los accidentes, se debe revisar los trabajos para los cuales es apto este calzado.
----------------	--

### SECCIÓN 9: PROPIEDADES FÍSICAS Y QUÍMICAS.

#### 9.1 Información sobre propiedades físicas y químicas básicas.

Aspecto: Sólido cristalino

Color: Blanco

Olor: Inodoro

Umbral olfativo: N.D./N.A.

pH: 1,18 (1%)

Punto de Fusión: 205 °C

Punto/intervalo de ebullición: N.D./N.A.

Punto de inflamación: > 60 °C

Tasa de evaporación: N.D./N.A.

Inflamabilidad (sólido, gas): N.D./N.A.

Límite inferior de explosión: N.D./N.A.

Límite superior de explosión: N.D./N.A.

Presión de vapor: N.D./N.A.

Densidad de vapor: N.D./N.A.

Densidad relativa: 2.12 (20 °C) g/cm<sup>3</sup>

Solubilidad: N.D./N.A.

Liposolubilidad: N.D./N.A.

Hidrosolubilidad: 213 g/l

Coefficiente de reparto (n-octanol/agua): N.D./N.A.

Temperatura de autoinflamación: N.D./N.A.

Temperatura de descomposición: N.D./N.A.

Viscosidad: N.D./N.A.

Propiedades explosivas: N.D./N.A.

Propiedades comburentes: No aplicable

N.D./N.A. = No Disponible/No Aplicable debido a la naturaleza del producto.

#### 9.2 Otros datos.

Punto de Gota: N.D./N.A.

Centelleo: N.D./N.A.

Viscosidad cinemática: N.D./N.A.

N.D./N.A. = No Disponible/No Aplicable debido a la naturaleza del producto.

### SECCIÓN 10: ESTABILIDAD Y REACTIVIDAD.

#### 10.1 Reactividad.

El producto no presenta peligros debido a su reactividad.

#### 10.2 Estabilidad química.

Inestable en contacto con:

- Bases.

#### 10.3 Posibilidad de reacciones peligrosas.

Puede producirse una neutralización en contacto con bases.

#### 10.4 Condiciones que deben evitarse.

- Evitar el contacto con bases.

#### 10.5 Materiales incompatibles.

Evitar los siguientes materiales:

- Bases.

#### 10.6 Productos de descomposición peligrosos.

Dependiendo de las condiciones de uso, pueden generarse los siguientes productos:

# FICHA DE DATOS DE SEGURIDAD

(de acuerdo con el Reglamento (UE) 2015/830)

## FILNET sólido



Versión: 1

Fecha de revisión: 11/01/2017

Página 6 de 9

Fecha de impresión: 11/01/2017

- Vapores o gases corrosivos.

### SECCIÓN 11: INFORMACIÓN TOXICOLÓGICA.

PREPARADO IRRITANTE. Salpicaduras en los ojos pueden causar irritación de los mismos.

PREPARADO IRRITANTE. Su contacto repetido o prolongado con la piel o las mucosas, puede causar síntomas irritantes, tales como enrojecimiento, ampollas o dermatitis. Algunos de los síntomas pueden no ser inmediatos. Pueden producirse reacciones alérgicas en la piel.

#### 11.1 Información sobre los efectos toxicológicos.

El contacto repetido o prolongado con el producto, puede causar la eliminación de la grasa de la piel, dando lugar a una dermatitis de contacto no alérgica y a que se absorba el producto a través de la piel.

Las salpicaduras en los ojos pueden causar irritación y daños reversibles.

#### Información Toxicológica.

Nombre	Toxicidad aguda			
	Tipo	Ensayo	Especie	Valor
ácido sulfámico  N. CAS: 5329-14-6    N. CE: 226-218-8	Oral	LD50	Rata	> 2000 mg/kg
	Cutánea	LD50	Rata	>2000 mg/kg bw [1]
		[1] Study report, 2010.		
Inhalación				

a) toxicidad aguda;

Datos no concluyentes para la clasificación.

b) corrosión o irritación cutáneas;

Producto clasificado:

Irritante cutáneo, Categoría 2: Provoca irritación cutánea.

c) lesiones oculares graves o irritación ocular;

Producto clasificado:

Irritación ocular, Categoría 2: Provoca irritación ocular grave.

d) sensibilización respiratoria o cutánea;

Datos no concluyentes para la clasificación.

e) mutagenicidad en células germinales;

Datos no concluyentes para la clasificación.

f) carcinogenicidad;

Datos no concluyentes para la clasificación.

g) toxicidad para la reproducción;

Datos no concluyentes para la clasificación.

h) toxicidad específica en determinados órganos (STOT) - exposición única;

Datos no concluyentes para la clasificación.

i) toxicidad específica en determinados órganos (STOT) - exposición repetida;

Datos no concluyentes para la clasificación.

j) peligro por aspiración;

Datos no concluyentes para la clasificación.

### SECCIÓN 12: INFORMACIÓN ECOLÓGICA.

#### 12.1 Toxicidad.

Nombre	Ecotoxicidad			
	Tipo	Ensayo	Especie	Valor

-Continúa en la página siguiente.-

# FICHA DE DATOS DE SEGURIDAD

(de acuerdo con el Reglamento (UE) 2015/830)

## FILNET sólido



Versión: 1

Fecha de revisión: 11/01/2017

Página 7 de 9

Fecha de impresión: 11/01/2017

ácido sulfámico  N. CAS: 5329-14-6      N. CE: 226-218-8	Peces	LC50	Pimephales promelas	70.3 mg/l (96 h) [1]
			[1] Aquatic Toxicity of Forty Industrial Chemicals: Testing in Support of Hazardous Substance Spill Prevention Regulation, M.W. CURTIS and C.H. WARD, 1981.	
	Invertebrados acuáticos	EC50	Dafnia magna	71.6 mg/l (48 h) [1]
			[1] Study report, 2010.	
	Plantas acuáticas	EC50	Desmodesmus subspicatus	48 mg/l (72 h) [1]
			[1] Study report, 2010. OECD Guideline 201 (Alga, Growth Inhibition Test)	

### 12.2 Persistencia y degradabilidad.

No existe información disponible sobre la persistencia y degradabilidad del producto.

### 12.3 Potencial de Bioacumulación.

No se dispone de información relativa a la Bioacumulación.

### 12.4 Movilidad en el suelo.

No existe información disponible sobre la movilidad en el suelo.

No se debe permitir que el producto pase a las alcantarillas o a cursos de agua.

Evitar la penetración en el terreno.

### 12.5 Resultados de la valoración PBT y mPmB.

No existe información disponible sobre la valoración PBT y mPmB del producto.

### 12.6 Otros efectos adversos.

No existe información disponible sobre otros efectos adversos para el medio ambiente.

## SECCIÓN 13: CONSIDERACIONES RELATIVAS A LA ELIMINACIÓN.

### 13.1 Métodos para el tratamiento de residuos.

No se permite su vertido en alcantarillas o cursos de agua. Los residuos y envases vacíos deben manipularse y eliminarse de acuerdo con las legislaciones local/nacional vigentes.

Seguir las disposiciones de la Directiva 2008/98/CE respecto a la gestión de residuos.

## SECCIÓN 14: INFORMACIÓN RELATIVA AL TRANSPORTE.

Transportar siguiendo las normas ADR/TPC para el transporte por carretera, las RID por ferrocarril, las IMDG por mar y las ICAO/IATA para transporte aéreo.

**Tierra:** Transporte por carretera: ADR, Transporte por ferrocarril: RID.

Documentación de transporte: Carta de porte e Instrucciones escritas.

**Mar:** Transporte por barco: IMDG.

Documentación de transporte: Conocimiento de embarque.

**Aire:** Transporte en avión: IATA/ICAO.

Documento de transporte: Conocimiento aéreo.

### 14.1 Número ONU.

# FICHA DE DATOS DE SEGURIDAD

(de acuerdo con el Reglamento (UE) 2015/830)

## FILNET sólido



Versión: 1

Fecha de revisión: 11/01/2017

Página 8 de 9

Fecha de impresión: 11/01/2017

Nº UN: UN2967

### 14.2 Designación oficial de transporte de las Naciones Unidas.

Descripción:

ADR: UN 2967, ÁCIDO SULFÁMICO, 8, GE III, (E)

IMDG: UN 2967, ÁCIDO SULFÁMICO, 8, GE/E III

ICAO: UN 2967, ÁCIDO SULFÁMICO, 8, GE III

### 14.3 Clase(s) de peligro para el transporte.

Clase(s): 8

### 14.4 Grupo de embalaje.

Grupo de embalaje: III

### 14.5 Peligros para el medio ambiente.

Contaminante marino: No

### 14.6 Precauciones particulares para los usuarios.

Etiquetas: 8



Número de peligro: 80

ADR cantidad limitada: 5 kg

IMDG cantidad limitada: 5 kg

ICAO cantidad limitada: 5 kg

Disposiciones relativas al transporte a granel en ADR:

VC1 Está autorizado el transporte a granel en vehículos entoldados, en contenedores entoldados o en contenedores para granel entoldados.

VC2 Está autorizado el transporte a granel en vehículos cubiertos, en contenedores cerrados o en contenedores para granel cerrados.

AP7 El transporte a granel no debe ser efectuado nada más que en cargamento completo.

Transporte por barco, FEm - Fichas de emergencia (F – Incendio, S – Derrames): F-A,S-B

Actuar según el punto 6.

Grupo de segregación del Código IMDG: 1 Ácidos

### 14.7 Transporte a granel con arreglo al anexo II del Convenio MARPOL y del Código IBC.

El producto no está afectado por el transporte a granel en buques.

## SECCIÓN 15: INFORMACIÓN REGLAMENTARIA.

### 15.1 Reglamentación y legislación en materia de seguridad, salud y medio ambiente específicas para la sustancia.

El producto no está afectado por el Reglamento (CE) nº 1005/2009 del Parlamento Europeo y del Consejo, de 16 de septiembre de 2009, sobre las sustancias que agotan la capa de ozono.

El producto no se encuentra afectado por la Directiva 2012/18/UE (SEVESO III).

El producto no está afectado por el Reglamento (UE) No 528/2012 relativo a la comercialización y el uso de los biocidas.

El producto no se encuentra afectado por el procedimiento establecido en el Reglamento (UE) No 649/2012, relativo a la exportación e importación de productos químicos peligrosos.

### 15.2 Evaluación de la seguridad química.

No se ha llevado a cabo una evaluación de la seguridad química del producto.

Se dispone de Escenario de Exposición del producto.

## SECCIÓN 16: OTRA INFORMACIÓN.



# FICHA DE DATOS DE SEGURIDAD

(de acuerdo con el Reglamento (UE) 2015/830)

## FILNET sólido



Versión: 1

Fecha de revisión: 11/01/2017

Página 9 de 9

Fecha de impresión: 11/01/2017

Códigos de clasificación:

Aquatic Chronic 3 : Efectos crónicos para el medio ambiente acuático, Categoría 3

Eye Irrit. 2 : Irritación ocular, Categoría 2

Skin Irrit. 2 : Irritante cutáneo, Categoría 2

Se aconseja realizar formación básica con respecto a seguridad e higiene laboral para realizar una correcta manipulación del producto.

Información sobre el Inventario TSCA (Toxic Substances Control Act) USA:

N. CAS	Nombre	Estado
5329-14-6	ácido sulfámico	Registrada

Se dispone de Escenario de Exposición del producto.

Abreviaturas y acrónimos utilizados:

ADR: Acuerdo europeo sobre el transporte internacional de mercancías peligrosas por carretera.

CEN: Comité Europeo de Normalización.

DMEL: Derived Minimal Effect Level, nivel de exposición que corresponde a un riesgo bajo, que debe considerarse un riesgo mínimo tolerable.

DNEL: Derived No Effect Level, (nivel sin efecto obtenido) nivel de exposición a la sustancia por debajo del cual no se prevén efectos adversos.

EC50: Concentración efectiva media.

EPI: Equipo de protección personal.

IATA: Asociación Internacional de Transporte Aéreo.

ICAO: Organización de Aviación Civil Internacional.

IMDG: Código Marítimo Internacional de Mercancías Peligrosas.

LC50: Concentración Letal, 50%.

LD50: Dosis Letal, 50%.

PNEC: Predicted No Effect Concentration, (concentración prevista sin efecto) concentración de la sustancia por debajo de la cual no se esperan efectos negativos en el comportamiento medioambiental.

RID: Regulación concerniente al transporte internacional de mercancías peligrosas por ferrocarril.

Principales referencias bibliográficas y fuentes de datos:

<http://eur-lex.europa.eu/homepage.html>

<http://echa.europa.eu/>

Reglamento (UE) 2015/830.

Reglamento (CE) No 1907/2006.

Reglamento (EU) No 1272/2008.

La información facilitada en esta ficha de Datos de Seguridad ha sido redactada de acuerdo con el REGLAMENTO (UE) 2015/830 DE LA COMISIÓN de 28 de mayo de 2015 por el que se modifica el Reglamento (CE) no 1907/2006 del Parlamento Europeo y del Consejo, relativo al registro, la evaluación, la autorización y la restricción de las sustancias y mezclas químicas (REACH), por el que se crea la Agencia Europea de Sustancias y Preparados Químicos, se modifica la Directiva 1999/45/CE y se derogan el Reglamento (CEE) nº 793/93 del Consejo y el Reglamento (CE) nº 1488/94 de la Comisión así como la Directiva 76/769/CEE del Consejo y las Directivas 91/155/CEE, 93/67/CEE, 93/105/CE y 2000/21/CE de la Comisión.

La información de esta Ficha de Datos de Seguridad del Producto está basada en los conocimientos actuales y en las leyes vigentes de la CE y nacionales, en cuanto que las condiciones de trabajo de los usuarios están fuera de nuestro conocimiento y control. El producto no debe utilizarse para fines distintos a aquellos que se especifican, sin tener primero una instrucción por escrito, de su manejo. Es siempre responsabilidad del usuario tomar las medidas oportunas con el fin de cumplir con las exigencias establecidas en las legislaciones.

The following exposure scenarios have been assessed for the product mentioned above:

1. Exposure scenario title	<b>ES 1: Manufacturing of cleaning and maintenance products, surface treatment products and/or biocidal products</b>	
<b>2. Identified uses covered in the Exposure Scenario</b>		
<p>(ES 1 just covers the manufacture or formulation of these end products)</p> <p>Identified Use 1 "Kitchen cleaner, dishwash product"</p> <p>Identified Use 2 "Floor and sanitary cleaner"</p> <p>Identified Use 4 "Oil well cleaner"</p> <p>Identified Use 5 "Metal surface treatment products, e.g. electroplating"</p> <p>Identified Use 6 "pH regulator"</p> <p>Identified Use 7 "Pulp and paper industry as a chloride stabilizer"</p> <p>Identified Use 10 "Cleaning metals and ceramics"</p> <p>Identified Use 11 "Surface disinfectant"</p> <p>Identified Use 12 "Laundry aid, laundry detergent"</p> <p>Identified Use 13 "Polishes and wax blends"</p> <p>Identified Use 14 "Non-metal surface treatment products"</p> <p>Identified Use 15 "Welding and soldering products, flux products"</p> <p>Identified Use 16 "Leather tanning industry for leather finishing"</p> <p>Identified Use 19 "Air care product"</p>		
<b>3. Description of activities/process(es) covered in the Exposure Scenario</b>		
<p>SU10 Formulation (mixing) of preparations and/or re-packaging</p> <p>PC 3 Air care products</p> <p>PC 8 Biocidal products (e.g. Disinfectants, pest control)</p> <p>PC 14 Metal surface treatment products, including galvanic and electroplating products</p> <p>PC 15 Non-metal-surface treatment products</p> <p>PC 20 Products such as pH-regulators, flocculants, precipitants, neutralization agents, other unspecific</p> <p>PC 23 Leather tanning, dye, finishing, impregnation and care products</p> <p>PC 26 Paper and board dye, finishing and impregnation products</p> <p>PC 31 Polishes and wax blends</p> <p>PC 35 Washing and cleaning products (including solvent based products)</p> <p>PC 38 Welding and soldering products, flux products</p> <p>PROC 3 Use in closed batch process (synthesis or formulation)</p> <p>PROC 4 Use in batch and other process (synthesis) where opportunity for exposure arises</p> <p>PROC 5 Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)</p> <p>PROC 7 Industrial spraying</p> <p>PROC 8a Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities</p> <p>PROC 8b Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities</p> <p>PROC 9 Transfer of substance or preparation into small containers (dedicated filling line, including weighing)</p> <p>PROC 13 Treatment of articles by dipping and pouring</p> <p>PROC 15 Use as laboratory reagent</p> <p>ERC2 Formulation of preparations</p>		
<b>4. Operational conditions</b>		
4.1 Duration of use for which the ES ensures control of risk	Duration of use: >4 h/day (all PROCs)	
4.2 Frequency of use for which the ES ensures control of risk	Not restricted	
4.3 Amount of use for which the ES ensures control of risk	1000t/y(based on the worst case)	
<b>5. Substance properties and use parameters</b>		
5.1 Physical form of product in which the substance is contained	Liquid/solid	
5.1a Surface area per amount of article containing the substance (if applicable)	Not applicable	
5.2 Concentration of substance in	0-100%	

preparation	
5.3 Amount used per time or per activity for which the RMMs, in combination with other operational conditions of use ensure control of risk (if applicable)	Not restricted
<b>6. Other operational conditions determining exposure</b>	
Room volume	≥ 20m <sup>3</sup>
Ventilation rate:	not specified
Temperature:	< 60 °C
Water flow rate:	not limited
Other operational conditions:	none
<b>7. Risk Management Measures that, in combination with the operational conditions of use, ensure control of risk related to the different target groups</b>	
<b>7.1.1 Occupational measures</b>	
<b>Data type</b>	<b>Data field</b>
<b>General measure</b>	
Skin contact inadmissible - Touching forbidden	Not to be used without protective gloves and eye protection Immediately eliminate or neutralize spilled solution. Do not inhale aerosols, fumes
Additional instruction,	Clean contaminated protective gloves with flowing water before taking off. Clean or take off protective clothing immediately after contaminating. Examine protective gloves for damage before beginning the activity.
Pour only with small heads (20 cm or less) or let liquid flow on the rim of container (avoidance of splashes)	Valid for all activities/all PROCs
<b>Product-related measures</b>	
Product-related measures	High viscosity adjustment with aids to avoid splashes Delivery only as barrel commodity and/or in the tank car (For all PROC).
Technical measures	Operation temperature: < 60 °C
<b>Organizational measures</b>	
General measures	Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)
Additional measures	Entrance to production/processing only for technical personnel, Delivery only to the specialized trade. Hold only the quantity necessary for the processing ready.
Local exhaust ventilation required plus good work practise	Not addressed.
<b>Personal protective equipment (PPE)</b>	
	<p><b>Hand protection:</b> Disposable gloves for brief application Gloves with 8-hour break-through security for longer application, e.g. butyl rubber or nitrile rubber protective index 6, EN 372.</p> <p><b>Eye protection:</b> Eye protector or goggles (all activities/PROCs), e.g. EN 166.</p> <p><b>Respiratory protection:</b> Respiratory protection equipment.</p> <p><b>Body protection:</b> Exposure suit for some activities with significant exposure possibility.</p> <p><b>Other measures:</b> Take a shower and change clothes after work.</p> <p>Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures,</p>

	Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)
7.1.2 Consumer related measures:	Not applicable for this Exposure Scenario
7.2 Environment related measures	<p>It is recommended that rainwater, sanitary sewage and industrial waste water can be separated from the sewerage and disposed by the sewage disposal apparatus.</p> <p>Neutralize before introducing into open waters (Regular control of the pH value during introduction into open waters).</p> <p>Remainders on application devices with much water.</p> <p>Diluted before discharge when necessary.</p>
<b>8. Waste related measures needed to ensure control of risk at the different life cycle stages of the substances (including preparations or articles at the end of service life)</b>	
<p>The wastes should be disposed of in according to local regulations. Avoid disposing into drainage systems and into the environment directly. The soiled packaging should be disposed of in the same way as the product.</p> <p>Discharges of sulphamic Acid from production sites to sewage treatment plants (STP)/waste water treatment plants and receiving waters are well controlled. Taking into account the existing EU Directives for pH-control for surface water and national regulations to control the pH of waster waters and surface waters is concluded that STPs and surface waters are sufficiently protected with regard to pH changes.</p>	
<b>9. Prediction of exposure resulting from the conditions described above</b>	
<p>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.</p> <p>Predicted exposures are not expected to exceed the applicable exposure limits (DNEL as provided above) when the operational conditions/risk management measures described above are implemented.</p> <p>The environmental exposure can be excluded taken into account the risk reduction measures which are already being applied.</p>	
<b>10. Guidance to DU to evaluate whether he works inside the boundaries set by the ES</b>	
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.	

<b>1. Exposure scenario title</b>	<b>ES 2: Professional use of cleaning and maintenance products, surface treatment products and/or biocidal products</b>	
<b>2. Identified uses covered in the Exposure Scenario</b>		
<p>(ES 2 just covers the professional use processes of these end products)</p> <p>Identified Use 1 "Kitchen cleaner, dishwash product"</p> <p>Identified Use 2 "Floor and sanitary cleaner"</p> <p>Identified Use 4 "Oil well cleaner"</p> <p>Identified Use 10 "Cleaning metals and ceramics"</p> <p>Identified Use 11 "Surface disinfectant"</p> <p>Identified Use 12 "Laundry aid, laundry detergent"</p> <p>Identified Use 13 "Polishes and wax blends"</p> <p>Identified Use 14 "Non-metal surface treatment products"</p> <p>Identified Use 19 "Air care product"</p>		
<b>3. Description of activities/process(es) covered in the Exposure Scenario</b>		
<p>SU 22 "Professional uses: Public domain (administration, education, entertainment, services, craftsmen)"</p> <p>SU 2b "Offshore industries"</p> <p>PC 3 "Air care products"</p> <p>PC 8 "Biocidal products (e.g. Disinfectants, pest control)"</p> <p>PC 13 "Fuels"</p> <p>PC 15 "Non-metal-surface treatment products"</p> <p>PC 31 "Polishes and wax blends"</p> <p>PC 35 "Washing and cleaning products (including solvent based products)"</p> <p>PROC 1 "Use in closed process, no likelihood of exposure"</p> <p>PROC 2 "Use in closed, continuous process with occasional controlled exposure"</p> <p>PROC 4 "Use in batch and other process (synthesis) where opportunity for exposure arises"</p> <p>PROC 5 "Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)"</p> <p>PROC 8a "Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities"</p> <p>PROC 8b "Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities"</p> <p>PROC 9 "Transfer of substance or preparation into small containers (dedicated filling line, including weighing)"</p> <p>PROC 10 "Roller application or brushing"</p> <p>PROC 11 "Non industrial spraying"</p> <p>PROC 13 "Treatment of articles by dipping and pouring"</p> <p>PROC 16 "Using material as fuel sources, limited exposure to unburned product to be expected"</p> <p>PROC 17 "Lubrication at high energy conditions and in partly open process"</p> <p>PROC 19 "Hand-mixing with intimate contact and only PPE available"</p> <p>PROC 20 "Heat and pressure transfer fluids in dispersive, professional use but closed systems"</p> <p>ERC 8a "Wide dispersive indoor use of processing aids in open systems"</p> <p>ERC 8b "Wide dispersive indoor use of reactive substances in open systems"</p> <p>ERC 8d "Wide dispersive outdoor use of processing aids in open systems"</p> <p>ERC 9a "Wide dispersive indoor use of substances in closed systems"</p> <p>ERC 9b "Wide dispersive outdoor use of substances in closed systems"</p>		
<b>4. Operational conditions</b>		
4.1 Duration of use for which the ES ensures control of risk	15 min –1 h/d (all PROCs)	
4.2 Frequency of use for which the ES ensures control of risk	Not restricted	
4.3 Amount of use for which the ES ensures control of risk	7 - 1000 t/y	
<b>5. Substance properties and use parameters</b>		
5.1 Physical form of product in which the substance is contained	3%-15% solution	
5.1a Surface area per amount of article containing the substance (if	Not applicable	

applicable)	
5.2 Concentration of substance in preparation	3-15%
5.3 Amount used per time or per activity for which the RMMs, in combination with other operational conditions of use ensure control of risk (if applicable)	Not restricted
<b>6. Other operational conditions determining exposure</b>	
Room volume	≥ 20m <sup>3</sup>
Ventilation rate:	not specified
Temperature:	<60 °C
Water flow rate:	not limited
Other operational conditions:	none
<b>7. Risk Management Measures that, in combination with the operational conditions of use, ensure control of risk related to the different target groups</b>	
7.1.1 Occupational measures	
<b>Data type</b>	<b>Data field</b>
<b>General measure</b>	
Skin contact inadmissible - Touching forbidden	Not to be used without protective gloves and eye protection Immediately eliminate or neutralize spilled solution, Do not inhale aerosols, fumes
Additional instruction,	Clean contaminated protective gloves with flowing water before taking off. Clean or take off protective clothing immediately after contaminating. Examine protective gloves for damage before beginning the activity.
Pour only with small heads (20 cm or less) or let liquid flow on the rim of container (avoidance of splashes)	Valid for all activities/all PROCs
<b>Product-related measures</b>	
Product-related measures	High viscosity adjustment with aids to avoid splashes Delivery only as barrel commodity and/or in the tank car (For all PROC).
Technical measures	Operation temperature: < 60 °C
<b>Organizational measures</b>	
General measures	Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)
Additional measures	Entrance to production/processing only for technical personnel, Delivery only to the specialized trade. Hold only the quantity necessary for the processing ready.
Local exhaust ventilation required plus good work practise	Not addressed. Local exhaust ventilation is recommended.
<b>Personal protective equipment (PPE)</b>	
	<p><b>Hand protection:</b> Gloves with 8-hour break-through security for longer application, e.g. butyl rubber or nitrile rubber protective index 6, EN 372.</p> <p><b>Eye protection:</b> Eye protector or goggles (all activities/PROCs), e.g. EN 166.</p> <p><b>Respiratory protection:</b> Respiratory protection equipment.</p> <p><b>Body protection:</b> Exposure suit for some activities with significant exposure possibility.</p> <p><b>Other measures:</b> Take a shower and change clothes after work.</p> <p>Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all</p>

	indicated activities/all above PROCs)
7.1.2 Consumer related measures:	Not applicable for this Exposure Scenario
7.2 Environment related measures	<p>Do not discharge to water directly. Diluted when necessary. Remainders on application devices with much water.</p> <p>No special information is available on onsite waste treatment.</p> <p>As the sulphamic acid may be recycled, reused or disposed by the manufacture or their downstream users, the discharge to wastes can be negligible.</p>
<b>8. Waste related measures needed to ensure control of risk at the different life cycle stages of the substances (including preparations or articles at the end of service life)</b>	
The wastes should be disposed of in according to local regulations. Avoid disposing into drainage systems and into the environment directly. The soiled packaging should be disposed of in the same way as the product.	
<b>9. Prediction of exposure resulting from the conditions described above</b>	
<p>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.</p> <p>Predicted exposures are not expected to exceed the applicable exposure limits (DNEL as provided above) when the operational conditions/risk management measures described above are implemented. Environmental exposure can be excluded taken into account the risk reduction measures which are already being applied.</p>	
<b>10. Guidance to DU to evaluate whether he works inside the boundaries set by the ES</b>	
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.	

<b>1. Exposure scenario title</b>	<b>ES 3: Industrial use of cleaning and maintenance products, surface treatment products and/or biocidal products</b>	
<b>2. Identified uses covered in the Exposure Scenario</b>		
<p>(ES 3 just covers the use processes of these end products in industrial sites)</p> <p>Identified Use 5 "Metal surface treatment products, e.g. electroplating"</p> <p>Identified Use 6 "pH regulator"</p> <p>Identified Use 7 "Pulp and paper industry as a chloride stabilizer"</p> <p>Identified Use 10 "Cleaning metals and ceramics"</p> <p>Identified Use 11 "Surface disinfectant"</p> <p>Identified Use 12 "Laundry aid, laundry detergent"</p> <p>Identified Use 15 "Welding and soldering products, flux products"</p> <p>Identified Use 16 "Leather tanning industry for leather finishing"</p>		
<b>3. Description of activities/process(es) covered in the Exposure Scenario</b>		
<p>SU 3 "Industrial uses: Uses of substance as such or in preparations at industrial sites "</p> <p>SU 5 "Manufacture of textiles, leather, fur"</p> <p>SU 6b "Manufacture of pulp, paper and paper products"</p> <p>SU 8 "Manufacture of bulk, large scale chemicals (including petroleum products)"</p> <p>SU 15 "Manufacture of fabricated metal products, except machinery and equipment"</p> <p>PC 8 "Biocidal products (e.g. Disinfectants, pest control)"</p> <p>PC 14 "Metal surface treatment products, including galvanic and electroplating products"</p> <p>PC 20 "Products such as pH-regulators, flocculants, precipitants, neutralization agents, other unspecific"</p> <p>PC 23 "Leather tanning, dye, finishing, impregnation and care products"</p> <p>PC 26 "Paper and board dye, finishing and impregnation products"</p> <p>PC 35 "Washing and cleaning products (including solvent based products)"</p> <p>PC 38 "Welding and soldering products, flux products"</p> <p>PROC 2 "Use in closed, continuous process with occasional controlled exposure"</p> <p>PROC 3 "Use in closed batch process (synthesis or formulation)"</p> <p>PROC 4 "Use in batch and other process (synthesis) where opportunity for exposure arises"</p> <p>PROC 5 "Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)"</p> <p>PROC 7 "Industrial spraying"</p> <p>PROC 8a "Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities"</p> <p>PROC 8b "Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities"</p> <p>PROC 9 "Transfer of substance or preparation into small containers (dedicated filling line, including weighing)"</p> <p>PROC 10 "Roller application or brushing"</p> <p>PROC 13 "Treatment of articles by dipping and pouring"</p> <p>PROC 15 "Use as laboratory reagent"</p> <p>PROC 16 "Using material as fuel sources, limited exposure to unburned product to be expected"</p> <p>PROC 19 "Hand-mixing with intimate contact and only PPE available"</p> <p>PROC 25 "Other hot work operations with metals"</p> <p>ERC 4 "Industrial use of processing aids"</p> <p>ERC 6b "Industrial use of reactive processing aids"</p>		
<b>4. Operational conditions</b>		
4.1 Duration of use for which the ES ensures control of risk	0.25 - 1.25 h/d	
4.2 Frequency of use for which the ES ensures control of risk	Not restricted	
4.3 Amount of use for which the ES ensures control of risk	100 - 750 t/y	
<b>5. Substance properties and use parameters</b>		
5.1 Physical form of product in which the substance is contained	Liquid	
5.1a Surface area per amount of article containing the substance (if applicable)	Not applicable	



5.2	Concentration of substance in use	100%
5.3	Amount used per time or per activity for which the RMMs, in combination with other operational conditions of use ensure control of risk (if applicable)	Not specified
<b>6. Other operational conditions determining exposure</b>		
	Room volume	≥ 20 m <sup>3</sup>
	Ventilation rate:	not specified
	Concentration of substance in preparation	3 % - 15 %
	Temperature:	not restricted
	Water flow rate:	not limited
	Other operational conditions:	none
<b>7. Risk Management Measures that, in combination with the operational conditions of use, ensure control of risk related to the different target groups</b>		
7.1.1	Occupational measures	
	<b>Data type</b>	<b>Data field</b>
<b>General measure</b>		
	Skin contact inadmissible - Touching forbidden	Not to be used without protective gloves and eye protection Immediately eliminate or neutralize spilled solution, Do not inhale aerosols, fumes
	Additional instruction,	Clean contaminated protective gloves with flowing water before taking off. Clean or take off protective clothing immediately after contaminating. Examine protective gloves for damage before beginning the activity.
	Pour only with small heads (20 cm or less) or let liquid flow on the rim of container (avoidance of splashes)	Valid for all activities/all PROCs
<b>Product-related measures</b>		
	Product-related measures	High viscosity adjustment with aids to avoid splashes Delivery only as barrel commodity and/or in the tank car (For all PROC).
	Technical measures	Operation temperature: < 60 °C
<b>Organizational measures</b>		
	General measures	Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)
	Additional measures	Entrance to production/processing only for technical personnel, Delivery only to the specialized trade. Hold only the quantity necessary for the processing ready.
	Local exhaust ventilation required plus good work practise	Not addressed. Local exhaust ventilation is recommended.
<b>Personal protective equipment (PPE)</b>		
		<b>Hand protection:</b> Gloves with 8-hour break-through security for longer application, e.g. butyl rubber or nitrile rubber protective index 6, EN 372. <b>Eye protection:</b> Eye protector or goggles (all activities/PROCs), e.g. EN 166. <b>Respiratory protection:</b> Respiratory protection equipment. <b>Body protection:</b> Exposure suit for some activities with significant exposure possibility. <b>Other measures:</b> Take a shower and change clothes after work.  Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures,

	Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)
7.1.2 Consumer related measures:	Not applicable for this Exposure Scenario
7.2 Environment related measures	<p>It is recommended that rainwater, sanitary sewage and industrial waste water can be separated from the sewerage and disposed by the sewage disposal apparatus.</p> <p>Neutralize before introducing into open waters (Regular control of the pH value during introduction into open waters).</p> <p>Remainders on application devices with much water.</p> <p>Diluted before discharge when necessary.</p>
<b>8. Waste related measures needed to ensure control of risk at the different life cycle stages of the substances (including preparations or articles at the end of service life)</b>	
<p>The wastes should be disposed of in according to local regulations. Avoid disposing into drainage systems and into the environment directly. The soiled packaging should be disposed of in the same way as the product.</p> <p>Discharges of sulphamic acid from production sites to sewage treatment plants (STP)/waste water treatment plants and receiving waters are well controlled. Taking into account the existing EU Directives for pH-control for surface water and national regulations to control the pH of waster waters and surface waters is concluded that STPs and surface waters are sufficiently protected with regard to pH changes.</p>	
<b>9. Prediction of exposure resulting from the conditions described above</b>	
<p>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.</p> <p>Predicted exposures are not expected to exceed the applicable exposure limits (DNEL as provided above) when the operational conditions/risk management measures described above are implemented. Environmental exposure can be excluded taken into account the risk reduction measures which are already being applied.</p>	
<b>10. Guidance to DU to evaluate whether he works inside the boundaries set by the ES</b>	
<p>Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.</p>	

<b>1. Exposure scenario title</b>	<b>ES 4: Consumer use of cleaning and maintenance products</b>
<b>2. Identified uses covered in the Exposure Scenario</b>	
( ES 4 just covers the dispersive use processes of these end products) Identified Use 1 "Kitchen cleaner, dishwash product" Identified Use 2 "Floor and sanitary cleaner" Identified Use 11 "Surface disinfectant" Identified Use 12 "Laundry aid, laundry detergent"	
<b>3. Description of activities/process(es) covered in the Exposure Scenario</b>	
SU 20 "Health services" SU 21 "Consumer uses: Private households (=general public=consumers)" SU 23 "Electricity, steam, gas water supply and sewage treatment" PC 8 "Biocidal products (e.g. Disinfectants, pest control)" PC 35 "Washing and cleaning products (including solvent based products)" ERC 8a "Wide dispersive indoor use of processing aids in open systems" ERC 8b "Wide dispersive indoor use of reactive substances in open systems"	
<b>4. Operational conditions</b>	
4.1 Duration of use for which the ES ensures control of risk	Duration of use: not specified
4.2 Frequency of use for which the ES ensures control of risk	Frequency of use: 1 event / week
4.3 Amount of use for which the ES ensures control of risk	100 - 1000 t/y use within entire EU
<b>5. Substance properties and use parameters</b>	
5.1 Physical form of product in which the substance is contained	Liquid
5.1a Surface area per amount of article containing the substance (if applicable)	Not applicable
5.2 Concentration of substance in preparation	< 8%
5.3 Amount used per time or per activity for which the RMMs, in combination with other operational conditions of use ensure control of risk (if applicable)	Not specified
<b>6. Other operational conditions determining exposure</b>	
Room volume	$\geq 20\text{m}^3$
Inhalation rate:	$1.37\text{ m}^3 / \text{hour}$
Temperature:	Unless otherwise stated assumes use at ambient temperatures
Contact area:	$1000\text{ cm}^3$
Other operational conditions:	Covers use under typical household ventilation.
<b>7. Risk Management Measures that, in combination with the operational conditions of use, ensure control of risk related to the different target groups</b>	
7.1.1 Occupational measures	Not applicable for this Exposure Scenario
7.1.2 Consumer related measures:	Clean contaminated protective gloves with flowing water before taking off. Handling permissible only after instruction on the dangers. Keep away from children.
<b>Personal protective equipment (PPE)</b>	Direct contact with cleaning agents is not advised. Gloves can be used, e.g. butyl rubber or nitrile rubber protective index 6, EN 372
7.2 Environment related measures	Not specified.
<b>8. Waste related measures needed to ensure control of risk at the different life cycle stages of the substances (including preparations or articles at the end of service life)</b>	

The wastes should be disposed of in according to local regulations. The soiled packaging should be disposed of in the same way as the product.

**9. Prediction of exposure resulting from the conditions described above**

The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.

Predicted exposures are not expected to exceed the applicable exposure limits (DNEL as provided above) when the operational conditions/risk management measures described above are implemented. Environmental exposure can be excluded taken into account the risk reduction measures which are already being applied.

**10. Guidance to DU to evaluate whether he works inside the boundaries set by the ES**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

<b>1. Exposure scenario title</b>	<b>ES 5: Industrial use of sulphamic acid as foam cleaner in food process</b>
<b>2. Identified uses covered in the Exposure Scenario</b>	
(ES 5 just covers the general use processes of this end product generated in the industrial sites) Identified Use 3 "Food process cleaner, foam cleaner"	
<b>3. Description of activities/process(es) covered in the Exposure Scenario</b>	
<p>SU 3 "Industrial uses: Uses of substance as such or in preparations at industrial sites"</p> <p>PC 35 "Washing and cleaning products (including solvent based products)"</p> <p>PROC 1 "Use in closed process, no likelihood of exposure"</p> <p>PROC 4 "Use in batch and other process (synthesis) where opportunity for exposure arises"</p> <p>PROC 7 "Industrial spraying"</p> <p>PROC 8a "Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities"</p> <p>PROC 8b "Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities"</p> <p>PROC 11 "Non industrial spraying"</p> <p>PROC 13 "Treatment of articles by dipping and pouring"</p> <p>ERC 4 "Industrial use of processing aids"</p>	
<b>4. Operational conditions</b>	
4.1 Duration of use for which the ES ensures control of risk	Duration of use: < 8 h/day (all PROCs)
4.2 Frequency of use for which the ES ensures control of risk	Not restricted
4.3 Amount of use for which the ES ensures control of risk	305 t/y
<b>5. Substance properties and use parameters</b>	
5.1 Physical form of product in which the substance is contained	Liquid
5.1a Surface area per amount of article containing the substance (if applicable)	Not applicable
5.2 Concentration of substance in preparation	Not specified
5.3 Amount used per time or per activity for which the RMMs, in combination with other operational conditions of use ensure control of risk (if applicable)	Not specified
<b>6. Other operational conditions determining exposure</b>	
Room volume	≥ 20m <sup>3</sup>
Ventilation rate:	not specified
Temperature:	not restricted
Water flow rate:	not limited
Other operational conditions:	none
<b>7. Risk Management Measures that, in combination with the operational conditions of use, ensure control of risk related to the different target groups</b>	
7.1.1 Occupational measures	
<b>Data type</b>	<b>Data field</b>
<b>General measure</b>	
Skin contact inadmissible - Touching forbidden	Not to be used without protective gloves and eye protection Immediately eliminate or neutralize spilled solution, Do not inhale aerosols, fumes
Additional instruction,	Clean contaminated protective gloves with flowing water before taking off. Clean or take off protective clothing immediately after contaminating.

	Examine protective gloves for damage before beginning the activity.
Pour only with small heads (20 cm or less) or let liquid flow on the rim of container (avoidance of splashes)	Valid for all activities/all PROCs
<b>Product-related measures</b>	
Product-related measures	High viscosity adjustment with aids to avoid splashes. Delivery only as barrel commodity and/or in the tank car (For all PROC).
Technical measures	Operation temperature: < 60 °C
<b>Organizational measures</b>	
General measures	Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)
Additional measures	Entrance to production/processing only for technical personnel, Delivery only to the specialized trade. Hold only the quantity necessary for the processing ready.
Local exhaust ventilation required plus good work practise	Local exhaust ventilation is recommended.
<b>Personal protective equipment (PPE)</b>	
	<p><b>Hand protection:</b> Gloves with 8-hour break-through security for longer application, e.g. butyl rubber or nitrile rubber protective index 6, EN 372.</p> <p><b>Eye protection:</b> Eye protector or goggles (all activities/PROCs), e.g. EN 166.</p> <p><b>Respiratory protection:</b> Respiratory protection equipment.</p> <p><b>Body protection:</b> Exposure suit for some activities with significant exposure possibility.</p> <p><b>Other measures:</b> Take a shower and change clothes after work.</p> <p>Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)</p>
7.1.2 Consumer related measures:	Not applicable for this Exposure Scenario
7.2 Environment related measures	It is recommended that rainwater, sanitary sewage and industrial waste water can be separated from the sewerage and disposed by the sewage disposal apparatus. Neutralize before introducing into open waters (Regular control of the pH value during introduction into open waters). Remainders on application devices with much water. Diluted before discharge when necessary.
<b>8. Waste related measures needed to ensure control of risk at the different life cycle stages of the substances (including preparations or articles at the end of service life)</b>	
The wastes should be disposed of in according to local regulations. Avoid disposing into drainage systems and into the environment directly. The soiled packaging should be disposed of in the same way as the product. Discharges of sulphamic acid from production to sewage treatment plants (STP)/waste water treatment plants and receiving waters are well controlled.	
<b>9. Prediction of exposure resulting from the conditions described above</b>	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. Predicted exposures are not expected to exceed the applicable exposure limits (DNEL as provided above) when the operational conditions/risk management measures described above are implemented. Environmental exposure can be excluded taken into account the risk reduction measures which are already being applied.	
<b>10. Guidance to DU to evaluate whether he works inside the boundaries set by the ES</b>	
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.	

<b>1. Exposure scenario title</b>	<b>ES 6: Industrial use of sulphamic acid for manufacture of urea-formaldehyde resins</b>	
<b>2. Identified uses covered in the Exposure Scenario</b>		
(ES 6 just cover the industrial use of this end product) Identified Use 8 "Coagulator for urea-formaldehyde resins"		
<b>3. Description of activities/process(es) covered in the Exposure Scenario</b>		
SU 8 "Manufacture of bulk, large scale chemicals (including petroleum products)" PC 32 "Polymer preparations and compounds" PROC 4 "Use in batch and other process (synthesis) where opportunity for exposure arises" PROC 5 "Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)" PROC 8a "Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities" PROC 8b "Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities" PROC 15 "Use as laboratory reagent" ERC 1 "Production of chemicals" ERC2 "Formulation of preparations" ERC 6d "Production of resins/rubbers"		
<b>4. Operational conditions</b>		
4.1 Duration of use for which the ES ensures control of risk	Duration of use: < 8 h/day (all PROCs)	
4.2 Frequency of use for which the ES ensures control of risk	Not restricted	
4.3 Amount of use for which the ES ensures control of risk	780 t/y	
<b>5. Substance properties and use parameters</b>		
5.1 Physical form of product in which the substance is contained	Liquid/solid	
5.1a Surface area per amount of article containing the substance (if applicable)	Not applicable	
5.2 Concentration of substance in preparation	Not specified	
5.3 Amount used per time or per activity for which the RMMs, in combination with other operational conditions of use ensure control of risk (if applicable)	Not specified	
<b>6. Other operational conditions determining exposure</b>		
Room volume	≥ 20 m <sup>3</sup>	
Ventilation rate:	not specified	
Temperature:	< 60 °C	
Water flow rate:	not limited	
Other operational conditions:	none	
<b>7. Risk Management Measures that, in combination with the operational conditions of use, ensure control of risk related to the different target groups</b>		
7.1.1 Occupational measures		
<b>Data type</b>	<b>Data field</b>	
<b>General measure</b>		
Skin contact inadmissible - Touching forbidden	Not to be used without protective gloves and eye protection Immediately eliminate or neutralize spilled solution, Do not inhale aerosols, fumes	
Additional instruction,	Clean contaminated protective gloves with flowing water before taking off. Clean or take off protective clothing immediately after contaminating.	

	Examine protective gloves for damage before beginning the activity.
Pour only with small heads (20 cm or less) or let liquid flow on the rim of container (avoidance of splashes)	Valid for all activities/all PROCs
<b>Product-related measures</b>	
Product-related measures	High viscosity adjustment with aids to avoid splashes. Delivery only as barrel commodity and/or in the tank car (For all PROC).
Technical measures	Operation temperature: < 60 °C
<b>Organizational measures</b>	
General measures	Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)
Additional measures	Entrance to production/processing only for technical personnel, Delivery only to the specialized trade. Hold only the quantity necessary for the processing ready.
Local exhaust ventilation required plus good work practise	Local exhaust ventilation is recommended.
<b>Personal protective equipment (PPE)</b>	
	<p><b>Hand protection:</b> Gloves with 8-hour break-through security for longer application, e.g. butyl rubber or nitrile rubber protective index 6, EN 372.</p> <p><b>Eye protection:</b> Eye protector or goggles (all activities/PROCs), e.g. EN 166.</p> <p><b>Respiratory protection:</b> Respiratory protection equipment.</p> <p><b>Body protection:</b> Exposure suit for some activities with significant exposure possibility.</p> <p><b>Other measures:</b> Take a shower and change clothes after work.</p> <p>Handling permissible only after instruction on the dangers. Regular control of the observance of the instructions - sanctioning for offence, Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)</p>
7.1.2 Consumer related measures:	Not applicable for this Exposure Scenario
7.2 Environment related measures	It is recommended that rainwater, sanitary sewage and industrial waste water can be separated from the sewerage and disposed by the sewage disposal apparatus. Neutralize before introducing into open waters (Regular control of the pH value during introduction into open waters). Remainders on application devices with much water. Diluted before discharge when necessary.
<b>8. Waste related measures needed to ensure control of risk at the different life cycle stages of the substances (including preparations or articles at the end of service life)</b>	
The wastes should be disposed of in according to local regulations. Avoid disposing into drainage systems and into the environment directly. The soiled packaging should be disposed of in the same way as the product. Discharges of sulphamic acid from production to sewage treatment plants (STP)/waste water treatment plants and receiving waters are well controlled.	
<b>9. Prediction of exposure resulting from the conditions described above</b>	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. Predicted exposures are not expected to exceed the applicable exposure limits (DNEL as provided above) when the operational conditions/risk management measures described above are implemented. Environmental exposure can be excluded taken into account the risk reduction measures which are already being applied.	
<b>10. Guidance to DU to evaluate whether he works inside the boundaries set by the ES</b>	
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.	



<b>1. Exposure scenario title</b>	<b>ES 7: Industrial use of sulphamic acid as nitrite remover in dye and pigment manufacture</b>	
<b>2. Identified uses covered in the Exposure Scenario</b>		
(ES 7 just covers the industrial use process for this end product) Identified Use 9 "Nitrite remover in dye and pigment manufacture"		
<b>3. Description of activities/process(es) covered in the Exposure Scenario</b>		
SU 3 "Industrial uses: Uses of substance as such or in preparations at industrial sites" PC 34 "Textile dyes, finishing and impregnating products" PROC 5 "Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)" ERC2 "Formulation of preparations" ERC 4 "Industrial use of processing aids"		
<b>4. Operational conditions</b>		
4.1 Duration of use for which the ES ensures control of risk	Duration of use: > 4 h/day (all PROCs)	
4.2 Frequency of use for which the ES ensures control of risk	Not restricted	
4.3 Amount of use for which the ES ensures control of risk	60 t/y	
<b>5. Substance properties and use parameters</b>		
5.1 Physical form of product in which the substance is contained	Liquid	
5.1a Surface area per amount of article containing the substance (if applicable)	Not applicable	
5.2 Concentration of substance in preparation	Not specified	
5.3 Amount used per time or per activity for which the RMMs, in combination with other operational conditions of use ensure control of risk (if applicable)	Not specified	
<b>6. Other operational conditions determining exposure</b>		
Room volume	$\geq 20\text{m}^3$	
Ventilation rate:	not specified	
Temperature:	not restricted	
Water flow rate:	not limited	
Other operational conditions:	none	
<b>7. Risk Management Measures that, in combination with the operational conditions of use, ensure control of risk related to the different target groups</b>		
7.1.1 Occupational measures		
<b>Data type</b>	<b>Data field</b>	
<b>General measure</b>		
Skin contact inadmissible - Touching forbidden	Not to be used without protective gloves and eye protection Immediately eliminate or neutralize spilled solution, Do not inhale aerosols, fumes	
Additional instruction,	Clean contaminated protective gloves with flowing water before taking off. Clean or take off protective clothing immediately after contaminating. Examine protective gloves for damage before beginning the activity.	
Pour only with small heads (20 cm or less) or let liquid flow on the rim of container (avoidance of splashes)	Valid for all activities/all PROCs	
<b>Product-related measures</b>		

Product-related measures	High viscosity adjustment with aids to avoid splashes. Delivery only as barrel commodity and/or in the tank car (For all PROC).
Technical measures	Operation temperature: < 60 °C
<b>Organizational measures</b>	
General measures	Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)
Additional measures	Entrance to production/processing only for technical personnel, Delivery only to the specialized trade. Hold only the quantity necessary for the processing ready.
Local exhaust ventilation required plus good work practise	Local exhaust ventilation is recommended.
<b>Personal protective equipment (PPE)</b>	
	<p><b>Hand protection:</b> Gloves with 8-hour break-through security for longer application, e.g. butyl rubber or nitrile rubber protective index 6, EN 372.</p> <p><b>Eye protection:</b> Eye protector or goggles (all activities/PROCs), e.g. EN 166.</p> <p><b>Respiratory protection:</b> Respiratory protection equipment.</p> <p><b>Body protection:</b> Exposure suit for some activities with significant exposure possibility.</p> <p><b>Other measures:</b> Take a shower and change clothes after work. Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)</p>
7.1.2 Consumer related measures:	Not applicable for this Exposure Scenario
7.2 Environment related measures	It is recommended that rainwater, sanitary sewage and industrial waste water can be separated from the sewerage and disposed by the sewage disposal apparatus. Neutralize before introducing into open waters (Regular control of the pH value during introduction into open waters). Remainders on application devices with much water. Diluted before discharge when necessary.
<b>8. Waste related measures needed to ensure control of risk at the different life cycle stages of the substances (including preparations or articles at the end of service life)</b>	
The wastes should be disposed of in according to local regulations. Avoid disposing into drainage systems and into the environment directly. The soiled packaging should be disposed of in the same way as the product. Discharges of sulphamic acid from production to sewage treatment plants (STP)/waste water treatment plants and receiving waters are well controlled.	
<b>9. Prediction of exposure resulting from the conditions described above</b>	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. Predicted exposures are not expected to exceed the applicable exposure limits (DNEL as provided above) when the operational conditions/risk management measures described above are implemented. Environmental exposure can be excluded taken into account the risk reduction measures which are already being applied.	
<b>10. Guidance to DU to evaluate whether he works inside the boundaries set by the ES</b>	
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.	

<b>1. Exposure scenario title</b>	<b>ES 8: Professional use of sulphamic acid as plasticizer in production of thermosetting plastics (e.g. phenolics)</b>	
<b>2. Identified uses covered in the Exposure Scenario</b>		
(ES 8 just covers the industrial use process of Sulfamic acid as Plasticizer) Identified Use 17 "Plasticizer"		
<b>3. Description of activities/process(es) covered in the Exposure Scenario</b>		
<p>SU 22 "Professional uses: Public domain (administration, education, entertainment, services, craftsmen)"</p> <p>PC 32 "Polymer preparations and compounds"</p> <p>PROC 2 "Use in closed, continuous process with occasional controlled exposure"</p> <p>PROC 8a "Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities"</p> <p>PROC 8b "Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities"</p> <p>PROC 10 "Roller application or brushing"</p> <p>PROC 11 "Non industrial spraying"</p> <p>PROC 16 "Using material as fuel sources, limited exposure to unburned product to be expected"</p> <p>PROC 17 "Lubrication at high energy conditions and in partly open process"</p> <p>PROC 20 "Heat and pressure transfer fluids in dispersive, professional use but closed systems"</p> <p>ERC 8a "Wide dispersive indoor use of processing aids in open systems"</p> <p>ERC 8d "Wide dispersive outdoor use of processing aids in open systems"</p> <p>ERC 9a "Wide dispersive indoor use of substances in closed systems"</p> <p>ERC 9b "Wide dispersive outdoor use of substances in closed systems"</p>		
<b>4. Operational conditions</b>		
4.1 Duration of use for which the ES ensures control of risk	No data available	
4.2 Frequency of use for which the ES ensures control of risk	Not specified	
4.3 Amount of use for which the ES ensures control of risk	No data available	
<b>5. Substance properties and use parameters</b>		
5.1 Physical form of product in which the substance is contained	Liquid/solid	
5.1a Surface area per amount of article containing the substance (if applicable)	Not applicable	
5.2 Concentration of substance in preparation	Not specified	
5.3 Amount used per time or per activity for which the RMMs, in combination with other operational conditions of use ensure control of risk (if applicable)	Not specified	
<b>6. Other operational conditions determining exposure</b>		
Room volume	≥ 20m <sup>3</sup>	
Ventilation rate:	not specified	
Temperature:	< 60 °C	
Water flow rate:	not limited	
Other operational conditions:	none	
<b>7. Risk Management Measures that, in combination with the operational conditions of use, ensure control of risk related to the different target groups</b>		
7.1.1 Occupational measures		
<b>Data type</b>	<b>Data field</b>	
<b>General measure</b>		
Skin contact inadmissible - Touching forbidden	Not to be used without protective gloves and eye protection Immediately eliminate or neutralize spilled solution,	

	Do not inhale aerosols, fumes
Additional instruction,	Clean contaminated protective gloves with flowing water before taking off. Clean or take off protective clothing immediately after contaminating. Examine protective gloves for damage before beginning the activity.
Pour only with small heads (20 cm or less) or let liquid flow on the rim of container (avoidance of splashes)	Valid for all activities/all PROCs
<b>Product-related measures</b>	
Product-related measures	High viscosity adjustment with aids to avoid splashes. Delivery only as barrel commodity and/or in the tank car (For all PROC).
Technical measures	Operation temperature: < 60 °C
<b>Organizational measures</b>	
General measures	Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)
Additional measures	Entrance to production/processing only for technical personnel, Delivery only to the specialized trade. Hold only the quantity necessary for the processing ready.
Local exhaust ventilation required plus good work practise	Local exhaust ventilation is recommended.
<b>Personal protective equipment (PPE)</b>	
	<p><b>Hand protection:</b> Gloves with 8-hour break-through security for longer application, e.g. butyl rubber or nitrile rubber protective index 6, EN 372.</p> <p><b>Eye protection:</b> Eye protector or goggles (all activities/PROCs), e.g. EN 166.</p> <p><b>Respiratory protection:</b> Respiratory protection equipment.</p> <p><b>Body protection:</b> Exposure suit for some activities with significant exposure possibility.</p> <p><b>Other measures:</b> Take a shower and change clothes after work.</p> <p>Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)</p>
7.1.2 Consumer related measures:	Not applicable for this Exposure Scenario
7.2 Environment related measures	Do not discharge to water directly. Diluted when necessary. Remainders on application devices with much water. The waste gas should not be discharged to the air directly. No special information is available on onsite waste treatment. As the sulphamic acid may be recycled, reused or disposed by the manufacture or their downstream users, the discharge to wastes can be negligible. Recovery of sludge for agriculture or horticulture is forbidden.
<b>8. Waste related measures needed to ensure control of risk at the different life cycle stages of the substances (including preparations or articles at the end of service life)</b>	
The wastes should be disposed of in according to local regulations. Avoid disposing into drainage systems and into the environment directly. The soiled packaging should be disposed of in the same way as the product.	
<b>9. Prediction of exposure resulting from the conditions described above</b>	
<p>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.</p> <p>Predicted exposures are not expected to exceed the applicable exposure limits (DNEL as provided above) when the operational conditions/risk management measures described above are implemented. Environmental exposure can be excluded taken into account the risk reduction measures which are already being applied.</p>	

**10. Guidance to DU to evaluate whether he works inside the boundaries set by the ES**

Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

<b>1. Exposure scenario title</b>	<b>ES 9: Industrial use of sulphamic acid for synthesis of sweeteners</b>
<b>Identified uses covered in the Exposure Scenario</b>	
(ES 9 just covers the industrial use of the sulphamic acid in synthesis of sweeteners) Identified Use 18: "Synthesis of sweeteners"	
<b>3. Description of activities/process(es) covered in the Exposure Scenario</b>	
SU 4 "Manufacture of food products" PC 19 "Intermediate" PROC 3 "Use in closed batch process (synthesis or formulation)" ERC 1 "Production of chemicals"	
<b>4. Operational conditions</b>	
4.1 Duration of use for which the ES ensures control of risk	Not specified
4.2 Frequency of use for which the ES ensures control of risk	Not specified
4.3 Amount of use for which the ES ensures control of risk	1000 t/y
<b>5. Substance properties and use parameters</b>	
5.1 Physical form of product in which the substance is contained	Solid
5.1a Surface area per amount of article containing the substance (if applicable)	Not applicable
5.2 Concentration of substance in preparation	Not specified
5.3 Amount used per time or per activity for which the RMMs, in combination with other operational conditions of use ensure control of risk (if applicable)	Not specified
<b>6. Other operational conditions determining exposure</b>	
Room volume	≥ 20 m <sup>3</sup>
Ventilation rate:	not specified
Temperature:	< 60 °C
Water flow rate:	not limited
Other operational conditions:	none
<b>7. Risk Management Measures that, in combination with the operational conditions of use, ensure control of risk related to the different target groups</b>	
7.1.1 Occupational measures	
<b>Data type</b>	<b>Data field</b>
<b>General measure</b>	
Skin contact inadmissible - Touching forbidden	Not to be used without protective gloves and eye protection Immediately eliminate or neutralize spilled solution, Do not inhale aerosols, fumes
Additional instruction,	Clean contaminated protective gloves with flowing water before taking off. Clean or take off protective clothing immediately after contaminating. Examine protective gloves for damage before beginning the activity.
Pour only with small heads (20 cm or less) or let liquid flow on the rim of container (avoidance of splashes)	Valid for all activities/all PROCs
<b>Product-related measures</b>	
Product-related measures	High viscosity adjustment with aids to avoid splashes. Delivery only as barrel commodity and/or in the tank car (For all PROC).
Technical measures	Operation temperature: < 60 °C

<b>Organizational measures</b>	
General measures	<p>Handling permissible only after instruction on the dangers.</p> <p>Regular control of the effectiveness of the technical measures,</p> <p>Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)</p>
Additional measures	<p>Entrance to production/processing only for technical personnel,</p> <p>Delivery only to the specialized trade.</p> <p>Hold only the quantity necessary for the processing ready.</p>
Local exhaust ventilation required plus good work practise	Local exhaust ventilation is recommended.
<b>Personal protective equipment (PPE)</b>	
	<p><b>Hand protection:</b></p> <p>Gloves with 8-hour break-through security for longer application, e.g. butyl rubber or nitrile rubber protective index 6, EN 372.</p> <p><b>Eye protection:</b></p> <p>Eye protector or goggles (all activities/PROCs), e.g. EN 166.</p> <p><b>Respiratory protection:</b></p> <p>Respiratory protection equipment.</p> <p><b>Body protection:</b></p> <p>Exposure suit for some activities with significant exposure possibility.</p> <p><b>Other measures:</b></p> <p>Take a shower and change clothes after work.</p> <p>Handling permissible only after instruction on the dangers.</p> <p>Regular control of the effectiveness of the technical measures,</p> <p>Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)</p>
7.1.2 Consumer related measures:	Not applicable for this Exposure Scenario
7.2 Environment related measures	<p>Do not discharge to water directly.</p> <p>Diluted when necessary.</p> <p>Remainders on application devices with much water.</p> <p>The waste gas should not be discharged to the air directly.</p> <p>No special information is available on onsite waste treatment.</p> <p>As the sulphamic acid may be recycled, reused or disposed by the manufacture or their downstream users, the discharge to wastes can be negligible.</p> <p>Recovery of sludge for agriculture or horticulture is forbidden.</p>
<b>8. Waste related measures needed to ensure control of risk at the different life cycle stages of the substances (including preparations or articles at the end of service life)</b>	
The wastes should be disposed of in according to local regulations. Avoid disposing into drainage systems and into the environment directly. The soiled packaging should be disposed of in the same way as the product.	
<b>9. Prediction of exposure resulting from the conditions described above</b>	
<p>The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.</p> <p>Predicted exposures are not expected to exceed the applicable exposure limits (DNEL as provided above) when the operational conditions/risk management measures described above are implemented. Environmental exposure can be excluded taken into account the risk reduction measures which are already being applied.</p>	
<b>10. Guidance to DU to evaluate whether he works inside the boundaries set by the ES</b>	
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.	

<b>1. Exposure scenario title</b>	<b>ES 10: Industrial use of sulphamic acid as composite additive for hardening control of amino resins</b>
<b>2. Identified uses covered in the Exposure Scenario</b>	
(ES 10 just covers the industrial use of the Sulfamic acid as composite additive for hardening control of amino resins) Identified Use 20 "Composite additive for hardening control of amino resins"	
<b>3. Description of activities/process(es) covered in the Exposure Scenario</b>	
SU 3 "Industrial uses: Uses of substance as such or in preparations at industrial sites" PC 1 "Adhesives, sealants" PROC 5 "Mixing or blending in batch processes for formulation of preparations and articles (multistage and/or significant contact)" PROC 8a "Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities" PROC 8b "Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities" ERC2 "Formulation of preparations" ERC 6d "Production of resins/rubbers"	
<b>4. Operational conditions</b>	
4.1 Duration of use for which the ES ensures control of risk	> 4 h/d
4.2 Frequency of use for which the ES ensures control of risk	Not specified
4.3 Amount of use for which the ES ensures control of risk	15-100 t/y
<b>5. Substance properties and use parameters</b>	
5.1 Physical form of product in which the substance is contained	Liquid
5.1a Surface area per amount of article containing the substance (if applicable)	Not applicable
5.2 Concentration of substance in preparation	Not specified
5.3 Amount used per time or per activity for which the RMMs, in combination with other operational conditions of use ensure control of risk (if applicable)	Not specified
<b>6. Other operational conditions determining exposure</b>	
Room volume	≥ 20 m <sup>3</sup>
Ventilation rate:	not specified
Temperature:	< 60 °C
Water flow rate:	not limited
Other operational conditions:	none
<b>7. Risk Management Measures that, in combination with the operational conditions of use, ensure control of risk related to the different target groups</b>	
7.1.1 Occupational measures	
<b>Data type</b>	<b>Data field</b>
<b>General measure</b>	
Skin contact inadmissible - Touching forbidden	Not to be used without protective gloves and eye protection Immediately eliminate or neutralize spilled solution, Do not inhale aerosols, fumes
Additional instruction,	Clean contaminated protective gloves with flowing water before taking off. Clean or take off protective clothing immediately after contaminating. Examine protective gloves for damage before beginning the activity.
Pour only with small heads (20 cm or less) or let liquid flow on the rim of container	Valid for all activities/all PROCs



(avoidance of splashes)	
<b>Product-related measures</b>	
Product-related measures	High viscosity adjustment with aids to avoid splashes. Delivery only as barrel commodity and/or in the tank car (For all PROC).
Technical measures	Operation temperature: < 60 °C
<b>Organizational measures</b>	
General measures	Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)
Additional measures	Entrance to production/processing only for technical personnel, Delivery only to the specialized trade. Hold only the quantity necessary for the processing ready.
Local exhaust ventilation required plus good work practise	Local exhaust ventilation is recommended.
<b>Personal protective equipment (PPE)</b>	
	<p><b>Hand protection:</b> Gloves with 8-hour break-through security for longer application, e.g. butyl rubber or nitrile rubber protective index 6, EN 372.</p> <p><b>Eye protection:</b> Eye protector or goggles (all activities/PROCs), e.g. EN 166.</p> <p><b>Respiratory protection:</b> Respiratory protection equipment.</p> <p><b>Body protection:</b> Exposure suit for some activities with significant exposure possibility.</p> <p><b>Other measures:</b> Take a shower and change clothes after work.</p> <p>Handling permissible only after instruction on the dangers. Regular control of the effectiveness of the technical measures, Regular control of the application of the personal measures, (valid for all indicated activities/all above PROCs)</p>
7.1.2 Consumer related measures:	Not applicable for this Exposure Scenario
7.2 Environment related measures	It is recommended that rainwater, sanitary sewage and industrial waste water can be separated from the sewerage and disposed by the sewage disposal apparatus. Neutralize before introducing into open waters (Regular control of the pH value during introduction into open waters). Remainders on application devices with much water. Diluted before discharge when necessary.
<b>8. Waste related measures needed to ensure control of risk at the different life cycle stages of the substances (including preparations or articles at the end of service life)</b>	
The wastes should be disposed of in according to local regulations. Avoid disposing into drainage systems and into the environment directly. The soiled packaging should be disposed of in the same way as the product. Discharges of sulphamic acid from production to sewage treatment plants (STP)/waste water treatment plants and receiving waters are well controlled.	
<b>9. Prediction of exposure resulting from the conditions described above</b>	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated. Predicted exposures are not expected to exceed the applicable exposure limits (DNEL as provided above) when the operational conditions/risk management measures described above are implemented. Environmental exposure can be excluded taken into account the risk reduction measures which are already being applied.	
<b>10. Guidance to DU to evaluate whether he works inside the boundaries set by the ES</b>	
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.	

**Appendix: Abbreviations used in this exposure scenario document**

AC	Article category
DNEL	Derived no effect level
DU	Downstream user
ECETOC TRA	Targeted Risk Assessment Tool provided by ECETOC (European Centre for Ecotoxicology and Toxicology of Chemicals)
ERC	Environmental release category
ES	Exposure scenario
OC	Operational conditions
PC	Product category
PEC	Predicted environmental concentration
PNEC	Predicted no effect concentration
PROC	Process category
RMM	Risk management measures
SU	Sector of use