SECCIÓN 1. Identificación de la sustancia o la mezcla y de la sociedad o la empresa

1.1. Identificador de producto

Identificación del preparado:

Nombre comercial: FASSA MOUSSE CLEANER
Código comercial: 701063
UFI: 8DKM-C0T7-D20H-M809

1.2. Usos pertinentes identificados de la sustancia o de la mezcla y usos desaconsejados

Uso recomendado: Limpiador pata espuma de poliuretano

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

Proveedor: FASSA Srl
Via Lazzaris, 3 - 31027 Spresiano (TV) - ITALY
Tel. +39 0422 7222
Fax +39 0422 887509
Responsable: laboratorio.spresiano@fassabortolo.it

1.4. Teléfono de emergencia

+34 91 562 04 20

SECCIÓN 2. Identificación de los peligros

2.1. Clasificación de la sustancia o de la mezcla

Reglamento (CE) n. 1272/2008 (CLP)

Aerosols 1	Aerosol extremadamente inflamable. Recipiente a presión: Puede reventar si se calienta.
Eye Irrit. 2	Provoca irritación ocular grave.
STOT SE 3	Puede provocar somnolencia o vértigo.

Efectos físico-químicos nocivos para la salud humana y para el medio ambiente:

Ningún otro riesgo

2.2. Elementos de la etiqueta

Reglamento (CE) n. 1272/2008 (CLP)

Pictogramas de peligro y palabra de advertencia

Peligro

Indicaciones de peligro

H222, H229	Aerosol extremadamente inflamable. Recipiente a presión: Puede reventar si se calienta.
H319	Provoca irritación ocular grave.
H336	Puede provocar somnolencia o vértigo.

Consejos de prudencia

P210	Mantener alejado del calor, de superficies calientes, de chispas, de llamas abiertas y de cualquier otra fuente de ignición. No fumar.
P211	No pulverizar sobre una llama abierta u otra fuente de ignición.
P251	No perforar ni quemar, incluso después de su uso.
P261	Evitar respirar el humo/el gas/la niebla/los vapores/el aerosol.
P280	Llevar guantes, prendas, gafas y máscara de protección.
P305+P351+P338	EN CASO DE CONTACTO CON LOS OJOS: Enjuagar con agua cuidadosamente durante varios minutos. Quitar las lentes de contacto cuando estén presentes y pueda hacerse con facilidad. Proseguir con el lavado.
P337+P313	Si persiste la irritación ocular: Consultar a un médico.
P410+P412	Proteger de la luz del sol. No exponer a temperaturas superiores a 50 °C.

Disposiciones especiales:

EUH066 La exposición repetida puede provocar sequedad o formación de grietas en la piel.

Contiene:

Acetona

Disposiciones especiales de acuerdo con el anexo XVII del Reglamento REACH y sus posteriores modificaciones:

Ninguno

2.3. Otros peligros

Ninguna sustancia PBT, mPmB o perturbador endocrino presente en concentración >=0.1%

En caso de ventilación insuficiente y/o a través del uso, pueden desarrollarse mezclas explosivas/altamente inflamables.

DZFAS0203

Ningún otro riesgo

SECCIÓN 3. Composición/información sobre los componentes

3.1. Sustancias

N.A.

3.2. Mezclas

Identificación del preparado: FASSA MOUSSE CLEANER

Componentes peligrosos según el Reglamento CLP y su correspondiente clasificación:

Cantidad	Nombre	Núm. Ident.	Clasificación	Número de registro:
≥50 - <80 %	Acetona	CAS:67-64-1 EC:200-662-2 Index:606-001-00-8	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	01-2119471330-49-xxxx

SECCIÓN 4. Primeros auxilios

4.1. Descripción de los primeros auxilios

En caso de contacto con la piel:

Quitarse de inmediato la indumentaria contaminada y eliminarla de manera segura.

Lavar inmediatamente con abundante agua corriente y eventualmente jabón las zonas del cuerpo que han entrado en contacto con el producto, incluso si fuera sólo una sospecha.

Lavar completamente el cuerpo (ducha o baño).

En caso de contacto con los ojos:

En caso de contacto con los ojos, enjugarlos con agua durante un tiempo adecuado y manteniendo los párpados abiertos, luego consultar de inmediato con un oftalmólogo.

Proteger el ojo ileso.

En caso de ingestión:

No inducir el vómito, consultar con un médico presentando la FDS (Ficha de Datos de Seguridad) y la etiqueta de productos peligrosos

En caso de inhalación:

Llevar al accidentado al aire libre y mantenerlo en reposo y abrigado.

4.2. Principales síntomas y efectos, agudos y retardados

Los síntomas y los efectos son como se espera de los peligros según las indicaciones de la sección 2.

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

En caso de accidente o malestar, consultar de inmediato con un médico (si es posible mostrarle las instrucciones de uso o la ficha de seguridad)

SECCIÓN 5. Medidas de lucha contra incendios

5.1. Medios de extinción

Medios de extinción apropiados:

CO_2, extintores de polvo, espuma, agua nebulizada.

Medios de extinción que no se deben utilizar por motivos de seguridad:

Agua en chorros.

5.2. Peligros específicos derivados de la sustancia o la mezcla

La combustión produce humo pesado.

No inhalar los gases producidos por la explosión y/o la combustión (monóxido y dióxido de carbono, óxidos de nitrógeno).

5.3. Recomendaciones para el personal de lucha contra incendios

Utilizar equipos respiratorios apropiados.

Recoger por separado el agua contaminada utilizada para extinguir el incendio. No descargarla en la red de alcantarillado.

Si es posible, desde el punto de vista de la seguridad, retirar de inmediato del área los contenedores no dañados.

SECCIÓN 6. Medidas en caso de vertido accidental

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

Usar los dispositivos de protección individual.

Quitar toda fuente de encendido.

Llevar las personas a un lugar seguro.

Consultar las medidas de protección expuestas en los puntos 7 y 8.

6.2. Precauciones relativas al medio ambiente

Evitar que el producto penetre en el suelo/subsuelo. Evitar que penetre en aguas superficiales o en el alcantarillado.

En caso de fuga de gas o penetración en cursos de agua, suelo o sistema de alcantarillado, informar a las autoridades responsables.

6.3. Métodos y material de contención y de limpieza

Material idóneo para la recogida: material absorbente inerte (por ejemplo, arena, vermiculita).

Después de recoger el producto, lave con agua la zona y los materiales implicados.

Conservar el agua de lavado contaminada y eliminarla.

6.4. Referencia a otras secciones

Véanse también los apartados 8 y 13.

SECCIÓN 7. Manipulación y almacenamiento

7.1. Precauciones para una manipulación segura

Evitar el contacto con la piel y ojos, la inhalación de vapores y nieblas.

No utilizar contenedores vacíos que no hayan sido previamente limpiados.

Antes de realizar las operaciones de transferencia, asegurarse de que en los contenedores no haya materiales residuos incompatibles.

Recomendaciones sobre medidas generales de higiene en el trabajo:

La indumentaria contaminada debe ser sustituida antes de acceder a las áreas de almuerzo.

No comer ni beber durante el trabajo.

Remitirse también al apartado 8 para los dispositivos de protección recomendados.

7.2. Condiciones de almacenamiento seguro, incluidas posibles incompatibilidades

Conservar los recipientes bien cerrados en un lugar fresco y ventilado, lejos de fuentes de calor.

Manténgase alejado de llamas libres, chispas y fuentes de calor. Evite la exposición directa al sol.

Mantener alejado de comidas, bebidas y piensos.

Las posibles microfugas de propelente se disponen en el fondo, y al mezclarse con el aire y en presencia de igniciones pueden llegar a ser deflagrantes.

Materias incompatibles:

Ver punto 10.5

Indicaciones para los locales:

Frescos y adecuadamente aireados.

7.3. Usos específicos finales

Recomendaciones

Ver punto 1.2

Soluciones específicas para el sector industrial

Ningún uso particular

SECCIÓN 8. Controles de exposición/protección individual

8.1. Parámetros de control

Lista de los componentes en la fórmula con un valor OEL.

	Tipo OEL	país	Largo plazo mg/m3	Largo Plazo ppm	Corto plazo mg/m3	Corto plazo ppm	Nota
Acetona CAS: 67-64-1	ACGIH			250.000		500.000	A4, BEI - URT and eye irr, CNS impair
	UE		1210.000	500.000			
	MAK	AUSTRIA	1200	500	4800.000	2000.000	
	VLEP	BELGIUM	1210	500	2420	1000	
	VLEP	FRANCE	1210	500.000	2420	1000.000	
	AGW	GERMANY	1200.000	500.000	2400.000	1000.000	
	MAK	GERMANY	1200.000	500.000	2400.000	1000.000	
	ÁK	HUNGARY	1210		2420.000		
	VLEP	ITALY	1210	500			

NDS	POLAND	600.000		1800.000	
VLEP	ROMANIA	1210.000	500.000		
VLA	SPAIN	1210.000	500.000		
SUVA	SWITZERLAND	1200.000	500.000	2400.000	1000.000
MAC	NETHERLANDS	1210.000		2420.000	
WEL	U.K.	1210.000	500.000	3620.000	1500.000
VLE	PORTUGAL	1210.000	500.000		
GVI	CROATIA	1210.000	500.000		
MV	SLOVENIA	1210.000	500.000	2420.000	1000.000
TLV	CZECHIA	800.000	331.200	1500.000	621.000

Lista de los componentes contenidos en la fórmula con valor PNEC (nivel ningún efecto previsto)

	Límite PNEC	Vía de exposición	Frecuencia de exposición	Notas
Acetona CAS: 67-64-1	10.6 mg/l	agua dulce		
	1.06 mg/l	Agua marina		
	100 mg/l	Microorganismos en aguas residuales (STP)		
	30.4 mg/kg	Sedimentos de agua dulce		
	3.04 mg/kg	Sedimentos de agua marina		
	29.5 mg/kg	Suelo (agricultura)		

Nivel sin efecto derivado. (DNEL)

	Trabajador industrial	Trabajador profesional	Consumidor	Vía de exposición	Frecuencia de exposición	Notas
Acetona CAS: 67-64-1		1210 mg/m3	200 mg/m3	Por inhalación humana	A largo plazo, efectos sistémicos	
		2420 mg/m3		Por inhalación humana	A corto plazo, efectos locales	
		186 mg/kg	62 mg/kg	Dérmica humana	A largo plazo, efectos sistémicos	
			62 mg/kg	Oral humana	A largo plazo, efectos sistémicos	

8.2. Controles de la exposición

Procurar una ventilación adecuada. Cuando sea razonablemente factible, esto se puede lograr mediante el uso de ventilación de aire de cambio y una buena aspiración general.

Protección de los ojos:

Gafas con protección lateral (EN 166).

Protección de la piel:

El personal debe usar ropa antiestática hecha de fibra natural o fibra sintética resistente a altas temperaturas.

Protección de las manos:

No existe un material o una combinación de materiales para guantes que pueda garantizar una resistencia ilimitada a cualquier producto químico o combinación de productos.

Para la manipulación prolongada o repetida, usar guantes resistentes a los productos químicos.

Caucho butilo: espesor >= 0.4 mm; tiempo de permeación >= 480 min.; El caucho de nitrilo , Vitón , 4H .

La elección de los guantes adecuados no solo depende del material sino también de otras características de calidad que varían de un fabricante a otro, y de los métodos y tiempos de uso de la mezcla.

Protección respiratoria:

Si los trabajadores están expuestos a concentraciones superiores a los límites de exposición, deben utilizar respiradores certificados y adecuados.

Dispositivo de filtrado combinado (EN 14387).; Máscara con filtro "A", color marrón; Máscara con filtro "P", color blanco

Controles de la exposición ambiental:

Ver punto 6.2

Medidas higiénicas y técnicas

Ver apartado 7.

SECCIÓN 9. Propiedades físicas y químicas

9.1. Información sobre propiedades físicas y químicas básicas

Aspecto: Líquido

Color: transparente

Olor: como: Acetona

Punto de fusión/congelamiento: N.D.

Punto de ebullición inicial e intervalo de ebullición: N.D.

Inflamabilidad: N.A.

Límite superior/inferior de inflamabilidad o explosión: N.D.

Punto de inflamación: N.A.

Temperatura de auto-inflamación: 240.00 °C

Temperatura de descomposición: N.D.

pH: >=5.00<=6.00

Viscosidad cinemática: N.A.

Densidad: 0,65 g/cm3 (Método interno)

Densidad de los vapores: N.D.

Presión de vapor: N.D.

Hidrosolubilidad: N.A.

Solubilidad en aceite: N.A.

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

Características de las partículas:

Tamaño de las partículas: N.A.

9.2. Otros datos

Conductividad: N.A.

Propiedades explosivas: N.A.

Propiedades comburentes: N.A.

Tasa de evaporación: N.A.

SECCIÓN 10. Estabilidad y reactividad

10.1. Reactividad

Estable en condiciones normales

10.2. Estabilidad química

Estable en condiciones normales

10.3. Posibilidad de reacciones peligrosas

Debido al efecto del calor o en caso de incendio, se pueden liberar óxidos de carbono y vapores que pueden ser perjudiciales para la salud.

Mantener alejado de agentes oxidantes y materiales fuertemente alcalinos o ácidos, para evitar reacciones exotérmicas.

10.4. Condiciones que deben evitarse

Evitar acercarse a fuentes de calor.

10.5. Materiales incompatibles

Evitar el contacto con materiales oxidantes. El producto podría inflamarse.

Ver punto 10.3

10.6. Productos de descomposición peligrosos

En caso de almacenamiento y manipulación adecuados no se desarrollan productos de descomposición peligrosos.

Ver punto 5.2

SECCIÓN 11. Información toxicológica

11.1. Información sobre las clases de peligro definidas en el Reglamento (CE) n.o 1272/2008

Información toxicológica del producto:

a) toxicidad aguda	No clasificado
	A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
b) corrosión o irritación cutáneas	No clasificado
	A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

c) lesiones o irritación ocular graves	El producto está clasificado: Eye Irrit. 2(H319)
d) sensibilización respiratoria o cutánea	No clasificado
	A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
e) mutagenicidad en células germinales	No clasificado
	A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
f) carcinogenicidad	No clasificado
	A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
g) toxicidad para la reproducción	No clasificado
	A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
h) toxicidad específica en determinados órganos (STOT) – exposición única	El producto está clasificado: STOT SE 3(H336)
i) toxicidad específica en determinados órganos (STOT) – exposición repetida	No clasificado
	A la vista de los datos disponibles, no se cumplen los criterios de clasificación.
j) peligro de aspiración	No clasificado
	A la vista de los datos disponibles, no se cumplen los criterios de clasificación.

La información toxicológica de las sustancias principales halladas en el producto:

Acetona	a) toxicidad aguda	LD50 Oral Rata 5800 mg/kg
		LD50 Piel Conejo 7400 mg/kg
		LC50 Vapor de inhalación Rata 76 mg/l 4h

11.2. Información relativa a otros peligros

Propiedades de alteración endocrina:

Ningún perturbador endocrino presente en concentración >= 0.1%

SECCIÓN 12. Información ecológica

Utilícese con técnicas de trabajo adecuadas, evitando la dispersión del producto en el medio ambiente.

El producto no contiene sustancias consideradas nocivas para el ozono.

12.1. Toxicidad

Información Ecotoxicológica:

Lista de propiedades eco-toxicológicas del producto

No clasificado para riesgos medio ambientales

No hay datos disponibles para el producto

Lista de componentes con propiedades ecotoxicológicas

Componente	Núm. Ident.	Inform Ecotox
Acetona	CAS: 67-64-1 - EINECS: 200-662-2 - INDEX: 606-001-00-8	a) Toxicidad acuática aguda : LC50 Peces 5540 mg/l 96h
		a) Toxicidad acuática aguda : LC50 Daphnia 8800 mg/l 48h
		b) Toxicidad acuática crónica : NOEC Crustáceos 2212 mg/l

12.2. Persistencia y degradabilidad

Componente	Persistencia/degradabilidad:
Acetona	Rápidamente degradable

12.3. Potencial de bioacumulación

N.A.

12.4. Movilidad en el suelo

N.A.

12.5. Resultados de la valoración PBT y mPmB

Sobre la base de los datos disponibles, el producto no contiene sustancias PBT/mPmB en porcentaje ≥ 0.1%.

12.6. Propiedades de alteración endocrina

Ningún perturbador endocrino presente en concentración >= 0.1%

12.7. Otros efectos adversos

N.A.

SECCIÓN 13. Consideraciones relativas a la eliminación

13.1. Métodos para el tratamiento de residuos

Recuperar si es posible. Enviar a centros de eliminación autorizados o a incineración en condiciones controladas. Operar conforme con las disposiciones locales y nacionales vigentes.

No permitir la entrada en alcantarillados o cursos de agua.

Deseche los recipientes contaminados por el producto de acuerdo con las disposiciones legales locales o nacionales.

El producto, una vez caducado, debe desecharse según la normativa vigente.

SECCIÓN 14. Información relativa al transporte

14.1. Número ONU o número ID

1950

14.2. Designación oficial de transporte de las Naciones Unidas

ADR-Designación del transporte: AEROSOLES, inflamables

IATA-Nombre técnico: AEROSOLS, FLAMMABLE

IMDG-Nombre técnico: AEROSOLS

14.3. Clase(s) de peligro para el transporte

ADR-Por carretera: 2

IATA-Clase: 2.1

IMDG-Clase: 2

14.4. Grupo de embalaje

ADR-Grupo de embalaje: -

IATA-Grupo de embalaje: -

IMDG-Grupo de embalaje: -

14.5. Peligros para el medio ambiente

Agente contaminante del mar: No

Contaminante ambiental: No

IMDG-EMS: F-D, S-U

14.6. Precauciones particulares para los usuarios

Carretera y Ferrocarril (ADR-RID)

ADR-Etiquetado: 2.1

ADR - Número de identificación del peligro: -

ADR-Disposiciones especiales: 190 327 344 625

ADR-Categoria de transporte (Código de restricción en túneles):

Aire (IATA)

IATA-Pasajeros del avión: 203

IATA-Carga del avión: 203

IATA-Etiquetado: 2.1

IATA-Peligro secundario: -

IATA-Erg: 10L

IATA-Disposiciones especiales: A145 A167 A802

Mar (IMDG)

IMDG-Código de estiba: SW1 SW22

IMDG-Nota de estiba: SG69

IMDG-Peligro secundario: See SP63

IMDG-Disposiciones especiales: 63 190 277 327 344 381 959

14.7. Transporte marítimo a granel con arreglo a los instrumentos de la OMI

N.A.

SECCIÓN 15. Información reglamentaria

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

Dir. 98/24/CE (Riesgos relacionados con los agentes quí˙micos durante el trabajo)

Dir. 2000/39/CE (Valores límite de exposición profesional)

Directiva 2010/75/EU

Reglamento (CE) n. 1907/2006 (REACH)

Reglamento (CE) n. 1272/2008 (CLP)

Reglamento (CE) n. 790/2009 (ATP 1 CLP) y (UE) n. 758/2013

Reglamento (UE) n. 2020/878

Reglamento (UE) n. 286/2011 (ATP 2 CLP)

Reglamento (UE) n. 618/2012 (ATP 3 CLP)

Reglamento (UE) n. 487/2013 (ATP 4 CLP)

Reglamento (UE) n. 944/2013 (ATP 5 CLP)

Reglamento (UE) n. 605/2014 (ATP 6 CLP)

Reglamento (UE) n. 2015/1221 (ATP 7 CLP)

Reglamento (UE) n. 2016/918 (ATP 8 CLP)

Reglamento (UE) n. 2016/1179 (ATP 9 CLP)

Reglamento (UE) n. 2017/776 (ATP 10 CLP)

Reglamento (UE) n. 2018/669 (ATP 11 CLP)

Reglamento (UE) n. 2018/1480 (ATP 13 CLP)

Reglamento (UE) n. 2019/521 (ATP 12 CLP)

Reglamento (UE) n. 2020/217 (ATP 14 CLP)

Reglamento (UE) n. 2020/1182 (ATP 15 CLP)

Reglamento (UE) n. 2021/643 (ATP 16 CLP)

Reglamento (UE) n. 2021/849 (ATP 17 CLP)

Reglamento (UE) n. 2022/692 (ATP 18 CLP)

Restricciones relacionadas con el producto o las sustancias contenidas, de acuerdo con el anexo XVII del Reglamento (CE) 1907/2006 (REACH) y las modificaciones posteriores:

Restricciones relacionadas con el producto: 3, 40

Restricciones relacionadas con las sustancias contenidas: 75

Disposiciones sobre la directiva EU 2012/18 (Seveso III):

Categoría Seveso III de acuerdo con el anexo 1, parte 1	Requisitos de nivel inferior (toneladas)	Requisitos de nivel superior (toneladas)
el producto pertenece a la categoría: P3a	150	500

Reglamento (UE) No 649/2012 (Reglamento PIC)

No hay sustancias listadas

Clase de peligro para las aguas (Alemania).

1: Low hazard to waters

Sustancias SVHC:

Sobre la base de los datos disponibles, el producto no contiene sustancias SVHC en porcentaje ≥ 0.1%.

La sustancia "acetona" presente en este producto es un precursor de explosivos regulado por el Reglamento (UE) 2019/1148.

Todas las transacciones sospechosas, así como desapariciones y robos tienen que ser notificados al Punto de Contacto nacional.

Los Puntos de Contacto nacionales se encuentran aquí:

https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/crisis-and-terrorism/explosives/explosives-precursors/docs/list_of_competent_authorities_and_national_contact_points_en.pdf [ec.europa.eu]

15.2. Evaluación de la seguridad química

No se ha realizado ninguna evaluación de la seguridad química para la mezcla

SECCIÓN 16. Otra información

Código	Descripción
EUH066	La exposición repetida puede provocar sequedad o formación de grietas en la piel.
H222, H229	Aerosol extremadamente inflamable. Recipiente a presión: Puede reventar si se calienta.
H225	Líquido y vapores muy inflamables.

H319	Provoca irritación ocular grave.
H336	Puede provocar somnolencia o vértigo.

Código	Clase y categoría de peligro	Descripción
2.3/1	Aerosols 1	Aerosoles, Categoría 1
2.6/2	Flam. Liq. 2	Líquidos inflamables, Categoría 2
3.3/2	Eye Irrit. 2	Irritación ocular, Categoría 2
3.8/3	STOT SE 3	Toxicidad específica en determinados órganos (exposiciones única), Categoría 3

Clasificación y procedimiento utilizado para determinar la clasificación de las mezclas con arreglo al Reglamento (CE) nº 1272/2008 [CLP]:

Clasificación con arreglo al Reglamento (CE) nº 1272/2008	Procedimento de clasificación
2.3/1	Conforme a datos obtenidos de los ensayos
3.3/2	Método de cálculo
3.8/3	Método de cálculo

Este documento ha sido preparado por una persona competente que ha recibido un entrenamiento adecuado

Principales fuentes bibliográficas:

ECDIN: Environmental Chemicals Data and Information Network, Centro Común de Investigación, Comisión de las Comunidades Europeas

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, 8ª ed., Van Nostrand Reinold

Fichas de datos de seguridad de los proveedores de materias primas.

La información aquí detallada se basa en nuestros conocimientos hasta la fecha señalada arriba. Se refiere exclusivamente al producto indicado y no constituye garantía de cualidades particulares.

El usuario debe asegurarse de la idoneidad y exactitud de dicha información en relación al uso específico que debe hacer del producto.

Esta ficha anula y sustituye toda edición precedente.

Explicación de las abreviaturas y acrónimos usados en la ficha de datos de seguridad:

ACGIH: Conferencia Americana de Higienistas Industriales Gubernamentales

ADR: Acuerdo europeo relativo al transporte internacional de mercancías peligrosas por carretera.

ATE: Estimación de la toxicidad aguda

ATEmix: Estimación de Toxicidad Aguda (Mezclas)

BEI: Índice Biológico de Exposición

CAS: Chemical Abstracts Service (de la American Chemical Society).

CAV: Instituto de toxicología

CE: Comunidad Europea

CLP: Clasificación, etiquetado, embalaje.

CMR: Carcinógeno, mutagénico y tóxico para la reproducción

COV: Compuesto orgánico volátil

CSA: Valoración de la seguridad química

CSR: Informe sobre la seguridad química

DNEL: Nivel sin efecto derivado.

EC50: Concentración efectiva media

ECHA: Agencia Europea de Sustancias y Preparados Químicos

EINECS: Catálogo Europeo de Sustancias Químicas Comercializadas.

ES: Escenario de exposición

GefStoffVO: Ordenanza sobre sustancias peligrosas, Alemania.

GHS: Sistema Globalmente Armonizado de clasificación y etiquetado de productos químicos.

IARC: Centro Internacional de Investigaciones sobre el Cáncer

IATA: Asociación de Transporte Aéreo Internacional.

IC50: Concentración inhibitoria media

IMDG: Código marítimo internacional de mercancías peligrosas.

LC50: Concentración letal para el 50% de la población expuesta.

LD50: Dosis letal para el 50% de la población expuesta.

LDLo: Dosis letal baja

N.A.: No aplicable

N/A: No aplicable

N/D: No definido/No disponible

N.D.: No disponible

NIOSH: Instituto Nacional para la Salud y la Seguridad Ocupacional

NOAEL: Nivel sin Efecto Adverso Observado

OSHA: Administración de Seguridad y Salud Ocupacional.

PBT: Persistente, bioacumulable y tóxico

PGK: Instrucciones de embalaje
PNEC: Concentración prevista sin efecto.
PSG: Pasajeros
RID: Normas relativas al transporte internacional de mercancías peligrosas por ferrocarril.
STEL: Nivel de exposición de corta duración.
STOT: Toxicidad específica en determinados órganos.
TLV: Valor límite del umbral.
TLV-TWA: Valor límite del umbral para el tiempo medio ponderado de 8 horas por día (Estándar ACGIH).
vPvB: Muy persistente y muy bioacumulable.
WGK: Clase de peligro para las aguas (Alemania).

Acetone

Identification of the exposure scenario
Product name: Acetone
CAS number: 67-64-1
Review date: 13/03/2020

2 - INDUSTRIAL USES

Identified industrial uses of acetone and generic exposure scenario.
Table 1 lists the industrial uses identified for acetone.
If DUs wish to verify compliance with the ES, they should start with summary table 1 and, based on the textual description of the exposure scenarios, determine their own identified use, the PROC and the ERC associated with their specific activity.
DUs may identify the specific scenarios of their interest in section 2.2.1 for the environment, 2.2.2 for workers and 2.2.3 for consumers and verify the exposure and risk characterisation for the environment and for workers in section 2.3. The operating conditions described in each specific scenario do not necessarily apply to all sites. It may therefore be necessary to apply the graduated scaling method (appropriate adaptation to the actual conditions on site), in order to identify compliance with the conditions described in the exposure scenarios.

Table 1. Industrial uses identified for acetone

Identifier use: Production, processing and distribution of substances and mixtures.
Description: Production, processing (see example below), formulation and distribution of the substance or mixtures. Includes recycling/recovery, material transfers, storage, maintenance and loading (including vessels/barges, road/rail car and IBC), sampling and associated laboratory activities.
Sector of use (SU): SU3
Process categories (PROC): 1, 2, 3, 4, 5, 6, 8a, 8b, 9, 10, 14, 15
Environmental Release Categories (ERC): 1, 2, 4, 6a

Identifier use: Use in laboratories
Description: Use of the substance in the laboratory, including material transfer and equipment cleaning.
Sector of use (SU): SU3
Process categories (PROC): 10, 15
Environmental Release Categories (ERC): 4

Identifier use: Use in coatings
Description: Covers the use in coatings (paints, inks, adhesives, production of textiles etc.), including exposures during use (including materials receipt, storage, preparation and bulk and semi-bulk transfer, application by spray, roller, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities.
Sector of use (SU): SU3
Process categories (PROC): 1, 2, 3, 4, 5, 7, 8a, 8b, 9, 10, 13, 15, 19
Environmental Release Categories (ERC): 4

Identifier use: Use as a binder and release agent.
Description: Covers the use as binders and release agents including material transfers, mixing, application (including spraying and brushing), mould forming and casting, and handling of waste.
Sector of use (SU): SU3
Process categories (PROC): 1, 2, 3, 4, 5, 6, 7, 8a, 8b, 9, 10, 13
Environmental Release Categories (ERC): 5

Identifier use: Rubber production and processing
Description: Production of tyres and rubber articles in general, including processing of (uncured) rubber, maintenance and mixing of rubber additives, vulcanisation, cooling and finishing.
Sector of use (SU): SU3
Process categories (PROC): 1, 2, 3, 4, 5, 6, 8a, 8b, 9, 10, 13, 14
Environmental Release Categories (ERC): 6d

Identifier use: Polymer production
Description: Production of formulated polymers, including material transfers, additives handling (e.g. pigments, stabilisers, fillers, plasticisers, etc.), moulding, curing and forming activities, material re-works, storage and associated maintenance.
Sector of use (SU): SU3
Process categories (PROC): 1, 2, 3, 4, 5, 6, 8a, 8b, 9, 10, 13, 14, 15
Environmental Release Categories (ERC): 6d

Identifier use: Polymer processing
Description: Processing of formulated polymers, including material transfers, additives handling (e.g. pigments, stabilisers, fillers, plasticisers, etc.), moulding, curing and forming activities, material re-works, storage and associated maintenance.
Sector of use (SU): SU3
Process categories (PROC): 1, 2, 3, 4, 5, 6, 8a, 8b, 9, 10, 13, 14, 15
Environmental Release Categories (ERC): 6d

Identifier use: Use in cleaning agents
Description: Covers the use as a component of cleaning products including transfer from storage, pouring/unloading from drums or containers. Exposures during mixing/dilution in preparation and cleaning activities (including spraying, brushing, dipping, wiping, automatic and by hand), related equipment cleaning and maintenance.
Sector of use (SU): SU3
Process categories (PROC): 1, 2, 3, 4, 5, 7, 8a, 8b, 9, 10, 13, 19
Environmental Release Categories (ERC): 4

Identifier use: Use in oil fields in drilling and production operations
Description: Covers the use as a component of cleaning products including transfer from storage, pouring/unloading from drums or containers.
Sector of use (SU): SU3
Process categories (PROC): 1, 2, 3, 4, 8a, 8b
Environmental Release Categories (ERC): 4

Identifier use: Blowing agent
Description: Use as a blowing agent for rigid and flexible foams, including material transfers, mixing and injection, curing, cutting, storage and packing.
Sector of use (SU): SU3
Process categories (PROC): 1, 2, 3, 4, 8a, 9, 12
Environmental Release Categories (ERC): 4, 10a

Identifier use: Use in mining chemicals
Description: Covers the use of the substance in extraction processes at mining operations, including material transfers, winning and separation activities and substance recovery and disposal.
Sector of use (SU): SU3
Process categories (PROC): 1, 2, 3, 4, 5, 8b, 9
Environmental Release Categories (ERC): 8d

2.1 INDUSTRIAL USES OF ACETONE AND ACETONE-CONTAINING PRODUCTS

Title: Industrial uses of acetone and acetone-containing products
Sectors of use: All Industrial Uses (SU3)
Process categories: 1, 2, 3, 4, 5, 6, 7, 8a, 8b, 9, 10, 12, 13, 14, 15, 19
Environmental Release Categories: 1, 2, 4, 5, 6a, 6d, 10a, 8d (ERCs must be verified with the ECT tool) (ERCs must be verified with the ECT tool)
Scope of the process: Industrial processes relevant to acetone and acetone-containing products

2.2 OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

2.2.1. Contributing scenario controlling exposure for the environment

Method used for evaluation: Based on currently available information on chemical-physical properties, environmental behaviour and ecotoxicity, acetone should not be classified as environmentally hazardous or assessed as PBT or vPvB. An environmental risk characterisation that quantitatively assesses all uses identified by the registrant is not required. To provide DUs with the information to assess their local conditions, the ECT tool can, however, be used to perform an environmental risk assessment. If necessary, this includes predefined scenarios for safe use to assess the local working conditions of the DUs.

Operating conditions

Product features: Liquid. The substance has a single structure, a readily biodegradable ketone.
Frequency and duration of use: 360 days (default value used in the ECT-acetone tool)
Quantity used: See table 2.
Environmental factors not influenced by risk management: See table 2.
Other given operational conditions affecting environmental exposure: See table 2.

Risk Management Measures

Local technical conditions and measures to reduce and limit discharges, air emissions and soil release: Locate bulk storage outdoors [E2]. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures [DSU1].
Organizational measures to prevent/limit release from site: Common practices vary across sites thus conservative process release estimates used [TCS1]. Typical technical measures are closed systems, scrubbers or carbon absorbers. Typical onsite gaseous effluent treatment technology provides a removal efficiency of 90%.
Conditions and measures for the domestic sewage treatment plan: Use the “ECT Acetone” Excel tool to verify your local conditions.
Conditions and measures for external treatment of waste for disposal: External treatment and disposal of waste should comply with applicable local and/or national regulations [ETW3].
Conditions and measures for external recovery of waste: External treatment and disposal of waste should comply with applicable local and/or national regulations [ETW3].

2.2.2 Contributing scenario controlling exposure for workers

Product features: Liquid, vapour pressure > 10 kPa [OC5].
Concentration of the substance in the product: Covers a percentage substance in the product up to 100% (unless otherwise stated) [G13].
Frequency and duration of use/exposure: Covers a daily exposure up to 8 hours (unless otherwise specified) [G2].
Human factors not influenced by risk management: None identified by this scenario.
Other given operating conditions affecting employee exposure: Assumes a good basic standard of occupational hygiene has been implemented [G1]

Operational conditions and risk management measures affecting worker exposure

Assumes a good basic standard of occupational hygiene has been implemented [G1]. Locate bulk storage outdoors [E2]. Use suitable eye protection. [PPE26]. If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes. [PPE20]. Provide a basic standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan [E1].
For the operational conditions and risk reduction measures for each contributing scenario, see Table 3.
Note: Guidance is based on operational conditions that may not be applicable to all sites. The DU may therefore have to adapt or apply other appropriate site-specific risk reduction measures that are at least as efficient as those described here.

2.2.3 Contributing scenario controlling consumer exposure

There is no consumer exposure for this scenario.

2.3 EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

2.3.1 Contributing scenario for estimating environmental exposure

Tool used for evaluation: ECT-acetone tool based on EUSES

2.3.2 Contributing scenario for estimating worker exposure

Tool used for evaluation ECETOC TRA v2 (www.ecetoc.org/tra)
General parameters used:
Environment type: industrial
Dustiness: low (liquid substance)
Duration of exposure: > 4 hours/day, unless otherwise stated in the RMMs
Ventilation use: none, unless otherwise stated in the RMMs
Use of respiratory protection: none, unless otherwise stated in the RMMs
Use of skin protection: none, unless otherwise stated in the RMMs
Concentration in preparations: > 25%
When complying with the recommended risk management measures (RMMs) and operating conditions (OCs), exposure is not expected to exceed the DNELs and the risk characterisation ratios should be less than 1, as shown in table 3.

2.3.3 Contributing scenario for estimating consumer exposure

There is no consumer exposure for this scenario.

2.4. GUIDELINES FOR THE DU TO VERIFY COMPLIANCE WITH THE EXPOSURE SCENARIO

2.4.1 Guidelines for DU to verify compliance with the environmental exposure scenario

Based on currently available information on chemical-physical properties, environmental behaviour and ecotoxicity, acetone should not be classified as environmentally hazardous or assessed as PBT or vPvB. An environmental risk characterisation that quantitatively assesses all uses identified by the registrant is not required.
However, a dedicated scaling tool (ECT acetone tool) is provided to calculate the maximum allowable tonnage per year for both water and soil. The tool can be downloaded from the REACH consortium's webpage for phenol and derivatives.
http://www.reachcentrum.eu/en/consortium-management/consortia-under-reach/phenol-derivatives-reach-consortium/phenol-derivatives-dossiers.aspx
For different environmental release categories (ERC), the maximum allowable tonnage for a site may change considerably. Site-specific properties (local release factors, watercourse flow speeds, dilution factors, reduction efficiency of wastewater treatment plants, etc.) can also have a considerable impact on the annual allowable tonnage for a site. As stated before, changes in allowable tonnage due to differences in operating conditions can be calculated using the ECT acetone tool. A similar scaling is provided for the soil compartment.
2.4.2 Guidelines for DU to verify compliance with the contributing scenario for worker exposure estimation
Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in Table 3 are implemented [G22]. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels [G23]. Risk characterisation ratios (RCRs) are calculated by comparing the estimated exposure levels with the corresponding DNELs (RCR = exposure level/DNEL).

Table 2. OC, RMM, Risk Characterization - Environment - Industrial uses

Identifiers:
All ES

Operating Conditions and Risk Management Measures
ERC/SpERC: ERC must be verified with the ECT tool.
Quantity used
Tonnage per site: The ECT tool for acetone can be used to calculate the maximum tonnage allowed for the site.
Dilution factors
Fresh water: 10 (unless other data are available)
Sea water: 100 (unless other data are available)

Risk characteristics
An environmental risk characterization report is not required.

Table 3. OC, RMM, Risk Characterization - Workers - Industrial uses

Identifier: ES1

Operating Conditions and Risk Management Measures

Contributing scenario: General exposures (closed systems) [CS15].
Proc: 1
OC and typical RMMs: Closed systems [CS107]. In-Process Sampling [CS2].
RMM to be implemented: Sample via a closed loop or other system to avoid exposure [E8]. Handle substance within a closed system [E47].

Risk characteristics

RCR Inhalation: 0.00002
Dermal RCR: 0.002
RCR (all ways): 0.002

Identifier: ES2

Operating Conditions and Risk Management Measures

Contributing scenario: General exposures (closed systems) [CS15].
Proc: 2
OC and typical RMMs: Continuous process [CS54]. In-Process Sampling [CS2].
RMM to be implemented: Sample via a closed loop or other system to avoid exposure [E8]. Handle substance within a closed system [E47].

Risk characteristics

RCR Inhalation: 0.10
Dermal RCR: 0.01
RCR (all ways): 0.11

Identifier: ES3

Operating Conditions and Risk Management Measures

Contributing scenario: General exposures (closed systems) [CS15].
Proc: 3
OC and typical RMMs: Batch process [CS55]. In-Process Sampling [CS2].
RMM to be implemented: Sample via a closed loop or other system to avoid exposure [E8]. Handle substance within a closed system [E47].

Risk characteristics

RCR Inhalation: 0.20
Dermal RCR: 0.002
RCR (all ways): 0.20

Identifier: ES4

Operating Conditions and Risk Management Measures

Contributing scenario: In-Process Sampling [CS2]. Open systems [CS108].
Proc: 4
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics

RCR Inhalation: 0.20
Dermal RCR: 0.04
RCR (all ways): 0.24

Identifier: ES5

Operating Conditions and Risk Management Measures

Contributing scenario: Mixing operations (open systems) [CS30].
Proc: 5
OC and typical RMMs: Batch process [CS55]. In-Process Sampling [CS2].
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics

RCR Inhalation: 0.50
Dermal RCR: 0.07
RCR (all ways): 0.57

Identifier: ES6

Operating Conditions and Risk Management Measures

Contributing scenario: Calendering (including Banbury) [CS64]
Proc: 6
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics

RCR Inhalation: 0.50
Dermal RCR: 0.15
RCR (all ways): 0.65

Identifier: ES7

Operating Conditions and Risk Management Measures

Contributing scenario: Machine spraying/fogging [CS25].
Proc: 7
OC and typical RMMs: With local suction [CS109].
RMM to be implemented: Ensure material transfers are under containment or extract ventilation [E66].

Risk characteristics

RCR Inhalation: 0.05 Efficiency TRA 95%.
Dermal RCR: 0.01 Skin exposure TRA LEV reduction factor 0.05.
RCR (all ways): 0.06

Identifier: ES8

Operating Conditions and Risk Management Measures

Contributing scenario: Machine spraying/fogging [CS25].
Proc: 7
RMM to be implemented: Ensure operation is undertaken outdoors [E69].

Risk characteristics

RCR Inhalation: 0.70 Effectiveness of dilution by ventilation 30%.
Dermal RCR: 0.23
RCR (all ways): 0.93

Identifier: ES9

Operating Conditions and Risk Management Measures

Contributing scenario: Machine spraying/fogging [CS25].
Proc: 7
RMM to be implemented: Wear a respirator conforming to EN140 with type A filter or better [PPE22].

Risk characteristics

RCR Inhalation: 0.10 TRA RPE half mask.
Dermal RCR: 0.23
RCR (all ways): 0.33

Identifier: ES10

Operating Conditions and Risk Management Measures

Contributing scenario: Bulk product transfer [CS14].
Proc: 8a
OC and typical RMMs: Non-dedicated system [CS82]. Transfer from / pour from containers [CS22].
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics

RCR Inhalation: 0.50
Dermal RCR: 0.07
RCR (all ways): 0.57

Identifier: ES11

Operating Conditions and Risk Management Measures

Contributing scenario: Bulk product transfer [CS14].
Proc: 8b
OC and typical RMMs: Dedicated system [CS81]. Pouring from small containers [CS22].
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics

RCR Inhalation: 0.30
Dermal RCR: 0.037
RCR (all ways): 0.34

Identifier: ES12

Operating Conditions and Risk Management Measures

Contributing scenario: Filling of small packages [CS7].
Proc: 9
OC and typical RMMs: Dedicated system [CS81]. Pouring from small containers [CS9].
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics

RCR Inhalation: 0.40
Dermal RCR: 0.04
RCR (all ways): 0.44

Identifier: ES13

Operating Conditions and Risk Management Measures
Contributing scenario: Application by roller, brush [CS51].
Proc: 10
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics
RCR Inhalation: 0.50
Dermal RCR: 0.15
RCR (all ways): 0.65

Identifier: ES14

Operating Conditions and Risk Management Measures
Contributing scenario: Cleaning and maintenance of equipment [CS39].
Proc: 10
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics
RCR Inhalation: 0.50
Dermal RCR: 0.15
RCR (all ways): 0.65

Identifier: ES16

Operating Conditions and Risk Management Measures
Contributing scenario: Immersion, dipping and pouring [CS4].
Proc: 13
OC and typical RMMs: In-Process Sampling [CS2].
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics
RCR Inhalation: 0.50
Dermal RCR: 0.074
RCR (all ways): 0.57

Identifier: ES18

Operating Conditions and Risk Management Measures
Contributing scenario: Laboratory activity [CS36].
Proc: 15
OC and typical RMMs: Production of objects in foam [CS125].
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics
RCR Inhalation: 0.10
Dermal RCR: 0.00
RCR (all ways): 0.10

Identifier: ES19

Operating Conditions and Risk Management Measures
Contributing scenario: Hand application - fingerpaints, pastels, adhesives [CS72].
Proc: 19
RMM to be implemented: Wear suitable gloves tested to EN374 [PPE15].

Risk characteristics
RCR Inhalation: 0.50
Dermal RCR: 0.15
RCR (all ways): 0.65

3 - PROFESSIONAL USES

Identified professional uses of acetone and generic exposure scenario.
Table 4 lists the professional uses identified for Acetone.
If DUs wish to verify compliance with the ES, they should start with summary table 4 and, based on the textual description of the exposure scenarios, determine their own identified use, the PROC and the ERC associated with their specific activity.
DU can identify the specific scenarios of their interest in section 3.2.1 for the environment, for workers 3.2.2 and 3.2.3 for the consumer, check in section 3.3 the exposure and risk characterization for the environment and for the workers. The operating conditions described in each specific scenario do not necessarily apply to all sites. It may therefore be necessary to apply the graduated scaling method (appropriate adaptation to the actual conditions on site), in order to identify compliance with the conditions described in the exposure scenarios.

Table 4. Identified professional uses for acetone

Identifier use: Use in laboratories
Description: Use of small amounts in laboratory environments, including accidental exposures during material transfers and equipment cleaning.
Sector of use (SU): SU22
Process categories (PROC): 10, 15
Environmental Release Categories (ERC): 8a

Identifier use: Use in coatings
Description: Covers use in coatings (paints, inks, adhesives, etc.), including exposures during use (including materials receipt, storage, preparation and bulk and semi-bulk transfer, application by spray, roller, spreader, dip, flow, fluidised bed on production lines and film formation) and equipment cleaning, maintenance and associated laboratory activities.
Sector of use (SU): SU22
Process categories (PROC): 5, 8a,10, 13
Environmental Release Categories (ERC): 8a, 8c, 8d, 8f

Identifier use: Use as a binder and release agent.
Description: Covers the use as binders and release agents, including material transfers, mixing, application (including spraying and brushing), mould forming and casting and handling of waste.
Sector of use (SU): SU22
Process categories (PROC): 1, 2, 3, 4 5, 6, 8a, 8b, 9, 10, 11
Environmental Release Categories (ERC): 8a, 8b, 8c, 8d, 8e, 8f

Identifier use: Polymer production
Description: Production of formulated polymers, including material transfers, moulding and forming activities, material re-works and associated maintenance.
Sector of use (SU): SU22
Process categories (PROC): 8a
Environmental Release Categories (ERC): 8a, 8d, 8c, 8f

Identifier use: Polymer processing
Description: Processing of formulated polymers, including material transfers, moulding and forming activities, material re-works and associated maintenance.
Sector of use (SU): SU22
Process categories (PROC): 8a
Environmental Release Categories (ERC): 8a, 8d, 8c, 8f

Identifier use: Use in cleaning agents
Description: Covers the use as a component of cleaning products, including pouring/unloading from drums or containers. Exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping, automated and by hand).
Sector of use (SU): SU22
Process categories (PROC): 1, 2, 3, 4, 5, 8a, 8b, 9, 10, 11, 13, 19
Environmental Release Categories (ERC): 8a

Identifier use: Use in oil and gas field drilling and production operations
Description: Covers the use as a component of cleaning products including transfer from storage, pouring/unloading from drums or containers.
Sector of use (SU): SU22
Process categories (PROC): 1, 2, 3, 4, 8a, 8b
Environmental Release Categories (ERC): 8d

Identifier use: Use in agrochemicals
Description: Use as an agrochemical excipient for application by manual or machine spraying, smokes and fogging; including equipment clean-downs and disposal.
Sector of use (SU): SU22
Process categories (PROC): 1, 2, 4, 8a, 8b, 11, 13,19
Environmental Release Categories (ERC): 8a, 8d

Identifier use: Anti-freeze and de-icing products
Description: Ice prevention and de-icing of vehicles, aircraft and other equipment by spraying.
Sector of use (SU): SU22
Process categories (PROC): 1, 2, 8b, 11,19
Environmental Release Categories (ERC): 8d

Identifier use: Production and use of explosives
Description: Covers exposures arising from the manufacture and use of slurry explosives (including material transfers, mixing and charging) and equipment cleaning.
Sector of use (SU): SU22
Process categories (PROC): 1, 3, 5, 8a, 8b
Environmental Release Categories (ERC): 8d

3.1 PROFESSIONAL USES OF ACETONE AND ACETONE-CONTAINING PRODUCTS

Title: Professional uses of acetone and acetone-containing products
Sectors of use: All professional uses (SU22)
Process categories: 1, 2, 3, 4, 5, 6, 8a, 8b, 9, 10, 12, 13, 15, 19
Environmental Release Categories: 8a, 8b, 8c, 8d, 8e, 8f (ERCs must be verified with the ECT tool) (ERCs must be verified with the ECT tool)
Scope of the process: Professional processes relevant to acetone and acetone-containing products

3.2 OPERATING CONDITIONS AND RISK MANAGEMENT MEASURES

3.2.1. Contributing scenario controlling exposure for the environment

Method used for evaluation: Based on currently available information on chemical-physical properties, environmental behaviour and ecotoxicity, acetone should not be classified as environmentally hazardous or assessed as PBT or vPvB. An environmental risk characterisation that quantitatively assesses all uses identified by the registrant is not required. To provide DUs with the information to assess their local conditions, the ECT tool can, however, be used to perform an environmental risk assessment. If necessary, this includes predefined scenarios for safe use to assess the local working conditions of the DUs.

Operating conditions

Product features: Liquid. The substance has a single structure, a readily biodegradable ketone.
Frequency and duration of use: 360 days (default value used in the ECT-acetone tool)
Quantity used: See table 5.
Environmental factors not influenced by risk management: See table 5.
Other given operational conditions affecting environmental exposure: See table 5.

Risk Management Measures

Local technical conditions and measures to reduce and limit discharges, air emissions and soil release: Locate bulk storage outdoors [E2]. Guidance is based on assumed operating conditions which may not be applicable to all sites; thus, scaling may be necessary to define appropriate site-specific risk management measures.
Organizational measures to prevent/limit release from site: Common practices vary across sites thus conservative process release estimates used. Use of the "ECT Acetone" Excel tool to verify your local conditions is recommended.
Conditions and measures for the domestic sewage treatment plan: Use the "ECT Acetone" Excel tool to verify your local conditions.
Conditions and measures for external treatment of waste for disposal: External treatment and disposal of waste should comply with applicable local and/or national regulations.
Conditions and measures for external recovery of waste: External treatment and disposal of waste should comply with applicable local and/or national regulations.

3.2.2 Contributing scenario controlling exposure for workers

Product features: Liquid, vapour pressure > 10 kPa [OC5].
Concentration of the substance in the product: Covers a percentage substance in the product up to 100% (unless otherwise stated) [G13].
Frequency and duration of use/exposure: Covers a daily exposure up to 8 hours (unless otherwise specified) [G2].
Human factors not influenced by risk management: None identified by this scenario.
Other given operating conditions affecting employee exposure: Assumes a good basic standard of occupational hygiene has been implemented [G1]

Operational conditions and risk management measures affecting worker exposure

Assumes a good basic standard of occupational hygiene has been implemented [G1]. Locate bulk storage outdoors [E2]. Use suitable eye protection. [PPE26]. If repeated and/or prolonged skin exposure to the substance is likely, then wear suitable gloves tested to EN374 and provide employee skin care programmes. [PPE20]. Provide a basic standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan [E1].
For the operational conditions and risk reduction measures for each contributing scenario, see Table 6.
Note: Guidance is based on operational conditions that may not be applicable to all sites. The DU may therefore have to adapt or apply other appropriate site-specific risk reduction measures that are at least as efficient as those described here.

3.2.3 Contributing scenario controlling consumer exposure

There is no consumer exposure for this scenario.

3.3 EXPOSURE ESTIMATION AND REFERENCE TO ITS SOURCE

3.3.1 Contributing scenario for estimating environmental exposure

Tool used for evaluation: ECT-acetone tool based on EUSES

3.3.2 Contributing scenario for estimating worker exposure

Tool used for evaluation ECETOC TRA v2 (www.ecetoc.org/tra)
General parameters used:
Environment type: professional
Dustiness: low (liquid substance)
Duration of exposure: > 4 hours/day, unless otherwise stated in the RMMs
Ventilation use: none, unless otherwise stated in the RMMs
Use of respiratory protection: none, unless otherwise stated in the RMMs
Use of skin protection: none, unless otherwise stated in the RMMs
Concentration in preparations: > 25%
When complying with the recommended risk management measures (RMMs) and operating conditions (OCs), exposure is not expected to exceed the DNELs and the risk characterisation ratios should be less than 1, as shown in table 6.

3.3.3 Contributing scenario for estimating consumer exposure

There is no consumer exposure for this scenario.

3.4. GUIDELINES FOR THE DU TO VERIFY COMPLIANCE WITH THE EXPOSURE SCENARIO

3.4.1 Guidelines for DU to verify compliance with the environmental exposure scenario

Based on currently available information on chemical-physical properties, environmental behaviour and ecotoxicity, acetone should not be classified as environmentally hazardous or assessed as PBT or vPvB. An environmental risk characterisation that quantitatively assesses all uses identified by the registrant is not required.
However, a dedicated scaling tool (ECT acetone tool) is provided to calculate the maximum allowable tonnage per year for both water and soil. The tool can be downloaded from the REACH consortium's webpage for phenol and derivatives.
http://www.reachcentrum.eu/en/consortium-management/consortia-under-reach/phenol-derivatives-reach-consortium/phenol-derivatives-dossiers.aspx
For different environmental release categories (ERC), the maximum allowable tonnage for a site may change considerably. Site-specific properties (local release factors, watercourse flow speeds, dilution factors, reduction efficiency of wastewater treatment plants, etc.) can also have a considerable impact on the annual allowable tonnage for a site. As stated before, changes in allowable tonnage due to differences in operating conditions can be calculated using the ECT acetone tool. A similar scaling is provided for the soil compartment.
3.4.2 Guidelines for DU to verify compliance with the contributing scenario for worker exposure estimation
Predicted exposures are not expected to exceed the DN(M)EL when the risk management measures/operational conditions outlined in Table 5 are implemented [G22]. Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels [G23].
Risk characterisation ratios (RCRs) are calculated by comparing the estimated exposure levels with the corresponding DNELs (RCR = exposure level/DNEL).

Table 5. OC, RMM, Risk Characterization - Environment - Professional use.

Identifiers:
All ES

Operating Conditions and Risk Management Measures
ERC/SpERC: ERC must be verified with the ECT tool.
Quantity used
Tonnage per site: The ECT tool for acetone can be used to calculate the maximum tonnage allowed for the site.
Dilution factors
Fresh water: 10 (unless other data are available)
Sea water: 100 (unless other data are available)

Risk characteristics
An environmental risk characterization report is not required.

Table 6. OC, RMM, Risk Characterization - Workers - Professional use.

Identifier: ES1

Operating Conditions and Risk Management Measures
Contributing scenario: General exposures (closed systems) [CS15].
Proc: 1
OC and typical RMMs: Closed systems [CS107]. In-Process Sampling [CS2].
RMM to be implemented: Sample via a closed loop or other system to avoid exposure [E8]. Handle substance within a closed system [E47].

Risk characteristics
RCR Inhalation: 0.00002
Dermal RCR: 0.002
RCR (all ways): 0.002

Identifier: ES2

Operating Conditions and Risk Management Measures
Contributing scenario: General exposures (closed systems) [CS15].
Proc: 2
OC and typical RMMs: Continuous process [CS54]. In-Process Sampling [CS2].
RMM to be implemented: Sample via a closed loop or other system to avoid exposure [E8]. Handle substance within a closed system [E47].

Risk characteristics
RCR Inhalation: 0.10
Dermal RCR: 0.01
RCR (all ways): 0.11

Identifier: ES3

Operating Conditions and Risk Management Measures
Contributing scenario: General exposures (closed systems) [CS15].
Proc: 3
OC and typical RMMs: Batch process [CS55]. In-Process Sampling [CS2].
RMM to be implemented: Sample via a closed loop or other system to avoid exposure [E8]. Handle substance within a closed system [E47].

Risk characteristics
RCR Inhalation: 0.20
Dermal RCR: 0.002
RCR (all ways): 0.20

Identifier: ES4

Operating Conditions and Risk Management Measures

Contributing scenario: In-Process Sampling [CS2]. Open systems [CS15].
Proc: 4
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics

RCR Inhalation: 0.50
Dermal RCR: 0.04
RCR (all ways): 0.54

Identifier: ES5

Operating Conditions and Risk Management Measures

Contributing scenario: Mixing operations (open systems) [CS30].
Proc: 5
OC and typical RMMs: Batch process [CS55]. In-Process Sampling [CS2]. With local suction [CS109].
RMM to be implemented: Ensure material transfers are under containment or extract ventilation [E66].

Risk characteristics

RCR Inhalation: 0.20 Efficiency TRA LEV 80%.
Dermal RCR: 0.00 Dermal exposure TRA LEV reduction factor 0.01.
RCR (all ways): 0.20

Identifier: ES6

Operating Conditions and Risk Management Measures

Contributing scenario: Mixing operations (open systems) [CS30].
Proc: 5
OC and typical RMMs: Batch process [CS55]. In-Process Sampling [CS2].
RMM to be implemented: Ensure operation is undertaken outdoors [E69].

Risk characteristics

RCR Inhalation: 0.70 Effectiveness of dilution by ventilation 30%.
Dermal RCR: 0.07
RCR (all ways): 0.77

Identifier: ES7

Operating Conditions and Risk Management Measures

Contributing scenario: Mixing operations (open systems) [CS30].
Proc: 5
OC and typical RMMs: Batch process [CS55]. In-Process Sampling [CS2].
RMM to be implemented: Avoid carrying out activities involving exposure for more than 4 hours per day. [OC28].

Risk characteristics

RCR Inhalation: 0.60 Duration factor TRA 1-4 hours.
Dermal RCR: 0.07
RCR (all ways): 0.67

Identifier: ES8

Operating Conditions and Risk Management Measures

Contributing scenario: Calendering (including Banbury) [CS64] With local suction [CS109].
Proc: 6
RMM to be implemented: Ensure operation is undertaken outdoors [E69].

Risk characteristics

RCR Inhalation: 0.80 TRA efficiency LEV 80%.
Dermal RCR: 0.15
RCR (all ways): 0.99

Identifier: ES9

Operating Conditions and Risk Management Measures

Contributing scenario: Calendering (including Banbury) [CS64].
Proc: 6
RMM to be implemented: Ensure operation is undertaken outdoors [E69].

Risk characteristics

RCR Inhalation: 0.84 Effectiveness of dilution by ventilation 30%.
Dermal RCR: 0.15
RCR (all ways): 0.99

Identifier: ES10

Operating Conditions and Risk Management Measures
Contributing scenario: Calendering (including Banbury) [CS64].
Proc: 6
RMM to be implemented: Ensure operation is undertaken outdoors [E69].

Risk characteristics
RCR Inhalation: 0.72 Duration factor TRA 1-4 hours.
Dermal RCR: 0.15
RCR (all ways): 0.87

Identifier: ES11

Operating Conditions and Risk Management Measures
Contributing scenario: Bulk product transfer [CS14].
Proc: 8a
OC and typical RMMs: Non-dedicated system [CS82]. Pouring from small containers [CS22]. With local suction [CS109].
RMM to be implemented: Ensure material transfers are under containment or extract ventilation [E66].

Risk characteristics
RCR Inhalation: 0.20 TRA efficiency LEV 80%.
Dermal RCR: 0.001 Dermal exposure TRA LEV reduction factor 0.01.
RCR (all ways): 0.20

Identifier: ES12

Operating Conditions and Risk Management Measures
Contributing scenario: Bulk product transfer [CS14].
Proc: 8a
OC and typical RMMs: Non-dedicated facility [CS82]. Transfer from / pour from containers [CS22].
RMM to be implemented: Make sure the operation is performed outdoors [E69].

Risk characteristics
RCR Inhalation: 0.70 Effectiveness of dilution by ventilation 30%.
Dermal RCR: 0.07
RCR (all ways): 0.77

Identifier: ES13

Operating Conditions and Risk Management Measures
Contributing scenario: Bulk product transfer [CS14].
Proc: 8a
OC and typical RMMs: Non-dedicated facility [CS82]. Transfer from / pour from containers [CS22].
RMM to be implemented: Avoid carrying out activities involving exposure for more than 4 hours [OC28].

Risk characteristics
RCR Inhalation: 0.60 Duration factor TRA 1-4 hours.
Dermal RCR: 0.07
RCR (all ways): 0.67

Identifier: ES14

Operating Conditions and Risk Management Measures
Contributing scenario: Bulk product transfer [CS14].
Proc: 8b
OC and typical RMMs: Dedicated system [CS81]. Transfer from / pour from containers [CS22].
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics
RCR Inhalation: 0.50
Dermal RCR: 0.04
RCR (all ways): 0.54

Identifier: ES15

Operating Conditions and Risk Management Measures
Contributing scenario: Filling of small packages [CS7].
Proc: 9
OC and typical RMMs: Dedicated system [CS81]. Pouring from small containers [CS9].
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics
RCR Inhalation: 0.50
Dermal RCR: 0.04
RCR (all ways): 0.54

Identifier: ES16

Operating Conditions and Risk Management Measures

Contributing scenario: Application by roller, brush [CS51].
Proc: 10
OC and typical RMMs: Cleaning and maintenance of equipment [CS39]. With local suction [CS109].
RMM to be implemented: Ensure material transfers are under containment or extract ventilation [E66].

Risk characteristics

RCR Inhalation: 0.20 TRA efficiency LEV 80%.
Dermal RCR: 0.007 Skin exposure TRA LEV reduction factor 0.05.
RCR (all ways): 0.21

Identifier: ES17

Operating Conditions and Risk Management Measures

Contributing scenario: Application by roller, brush [CS51].
Proc: 10
OC and typical RMMs: Cleaning and maintenance of equipment [CS39].
RMM to be implemented: Limit the substance content in the product to 25% [OC18].

Risk characteristics

RCR Inhalation: 0.60 Concentration factor TRA 5-25%.
Dermal RCR: 0.09 Concentration factor TRA 5-25%.
RCR (all ways): 0.69

Identifier: ES18

Operating Conditions and Risk Management Measures

Contributing scenario: Application by roller, brush [CS51].
Proc: 10
OC and typical RMMs: Cleaning and maintenance of equipment [CS39].
RMM to be implemented: Avoid carrying out activities involving exposure for more than 4 hours [OC28].

Risk characteristics

RCR Inhalation: 0.60 Duration factor TRA 1-4 hours.
Dermal RCR: 0.15
RCR (all ways): 0.75

Identifier: ES19

Operating Conditions and Risk Management Measures

Contributing scenario: Spray or mist application with manual systems [CS24].
Proc: 11
OC and typical RMMs: With local suction [CS109].
RMM to be implemented: Ensure material transfers are under containment or extract ventilation [E66].

Risk characteristics

RCR Inhalation: 0.40 TRA efficiency LEV 80%.
Dermal RCR: 0.01 Dermal exposure TRA LEV reduction factor 0.02.
RCR (all ways): 0.41

Identifier: ES20

Operating Conditions and Risk Management Measures

Contributing scenario: Spray or mist application with manual systems [CS24].
Proc: 11
RMM to be implemented: Make sure the operation is performed outdoors [E69]. Limit the substance content in the product to 25% [OC18]. Avoid carrying out activities involving exposure for more than 4 hours per day. [OC28].

Risk characteristics

RCR Inhalation: 0.50 Effectiveness of dilution by ventilation 30%. Duration factor TRA 1-4 hours. Concentration factor TRA 5-25%.
Dermal RCR: 0.35 Concentration factor TRA 5-25%.
RCR (all ways): 0.85

Identifier: ES21

Operating Conditions and Risk Management Measures

Contributing scenario: Spray or mist application with manual systems [CS24].
Proc: 11
RMM to be implemented: Avoid carrying out activities involving exposure for more than 1 hour [OC27].

Risk characteristics

RCR Inhalation: 0.40 Duration factor BETWEEN 15 min - 1 hour.
Dermal RCR: 0.58
RCR (all ways): 0.98

Identifier: ES22

Operating Conditions and Risk Management Measures
Contributing scenario: Spray or mist application with manual systems [CS24].
Proc: 11
RMM to be implemented: Wear a respirator conforming to EN140 with type A filter or better [PPE22].

Risk characteristics
RCR Inhalation: 0.20 TRA factor RPE half mask.
Dermal RCR: 0.58
RCR (all ways): 0.78

Identifier: ES23

Operating Conditions and Risk Management Measures
Contributing scenario: Immersion, dipping and pouring [CS4].
Proc: 13
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics
RCR Inhalation: 0.50
Dermal RCR: 0.07
RCR (all ways): 0.57

Identifier: ES24

Operating Conditions and Risk Management Measures
Contributing scenario: Production of preparations or articles by tabletting, compression, extrusion, pelettisation [CS100].
Proc: 14
OC and typical RMMs: With local suction [CS109].
RMM to be implemented: Ensure material transfers are under containment or extract ventilation [E66].

Risk characteristics
RCR Inhalation: 0.20 TRA efficiency LEV 80%.
Dermal RCR: 0.002
RCR (all ways): 0.20

Identifier: ES25

Operating Conditions and Risk Management Measures
Contributing scenario: Production of preparations or articles by tabletting, compression, extrusion, pelettisation [CS100].
Proc: 15
RMM to be implemented: Avoid carrying out activities involving exposure for more than 4 hours [OC28].

Risk characteristics
RCR Inhalation: 0.60 Duration factor TRA 1-4 hours.
Dermal RCR: 0.02
RCR (all ways): 0.62

Identifier: ES26

Operating Conditions and Risk Management Measures
Contributing scenario: Laboratory activity [CS36].
Proc: 15
RMM to be implemented: No additional RMM (apart from the basic measures described above) is necessary to achieve safe use.

Risk characteristics
RCR Inhalation: 0.10
Dermal RCR: 0.002
RCR (all ways): 0.10

Identifier: ES27

Operating Conditions and Risk Management Measures
Contributing scenario: Hand application - fingerpaints, pastels, adhesives [CS72].
Proc: 19
RMM to be implemented: Limit the substance content in the product to 25% [OC18]. Wear suitable gloves tested to EN374 [PPE15].

Risk characteristics
RCR Inhalation: 0.60 Concentration factor TRA 5-25%.
Dermal RCR: 0.09 Concentration factor TRA 5-25% PPE factor gloves.
RCR (all ways): 0.96

Identifier: ES28

Operating Conditions and Risk Management Measures
Contributing scenario: Hand application - fingerpaints, pastels, adhesives [CS72].
Proc: 19
RMM to be implemented: Avoid carrying out activities involving exposure for more than 1 hour [OC27].

Risk characteristics
RCR Inhalation: 0.20 Duration factor BETWEEN 15 min - 1 hour.
Dermal RCR: 0.76
RCR (all ways): 0.96